# DOMESTIC ENGINEERING

TD1*
D66
v.143

JANUARY
1934

*To Our Readers:*

*Best wishes for 1934 as together we pick up the new responsibilities and opportunities it offers.*

*The Editors.*

TD
1*
D66
v.143

OMATIC HEAT AND AIR
DITIONING SECTION—
PAGE 59

ER AND BAR EQUIP-
MENT SECTION—
PAGE 101

*Plumbing & Heating Contracting and Merchandising*

# . . . You do CARE!

## TO KNOW WHY MONEY IS SPENT TO IMPROVE THE PRODUCTS YOU USE

Yes, even a stop and waste. More than just an effort to create sales thunder, the improvements embodied in the new Barrett Stop and Waste eliminate aggravating experiences for the man on the job.

That no mechanic should ever have to back up on the job on account of a sprung valve body or a poor thread connection is just one phase of the task that confronts the man who develops mechanical merit in rough brass goods.

Just whom would you expect to be so alert and so eager to eliminate these aggravating experiences if not the engineer specialist who devotes his whole thought and skill to produce rough brass goods that meet conditions you might consider as seldom arising.

It requires a purpose sincerely devoted to a single line of products to honestly appraise the time and labor saving value of such simple things as extra threads and a bevel for easy starting and quick connections, heavier hexes on the pipe ends, and a larger, heavier packing nut.

There is only one way to indulge indifference to such new improvements inexpensively. Acceptance of the new Barrett Stop and Waste settles the matter and you can go on being indifferent without one cent of extra cost to you.

You should expect a sample of this new Barrett Stop and Waste to back up these statements. The sample awaits your written request.

**THE CLEVELAND BRASS MANUFACTURING COMPANY • 4606 Hamilton Avenue • Cleveland, Ohio**

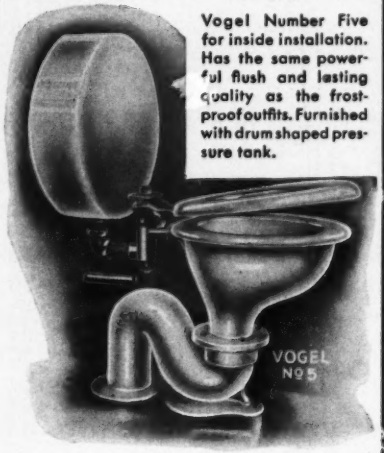
*The Standard of COMPARISON*

# BARRETT

PLUMBERS' ROUGH BRASS GOODS

The Vogel Number Four Frost-Proof Closet—with a vitreous china bowl and top inlet. Can never freeze and looks as good as a bathroom closet.

★




Vogel Number Five for inside installation. Has the same powerful flush and lasting quality as the frost-proof outfits. Furnished with drum shaped pressure tank.

Vogel Number Fourteen—non-frost-proof. Vitreous china bowl, heavy brass flush valve, reinforced hardwood seat and drum shaped tank.

# *With the New Year we show the* NEW VOGEL LINE!

★

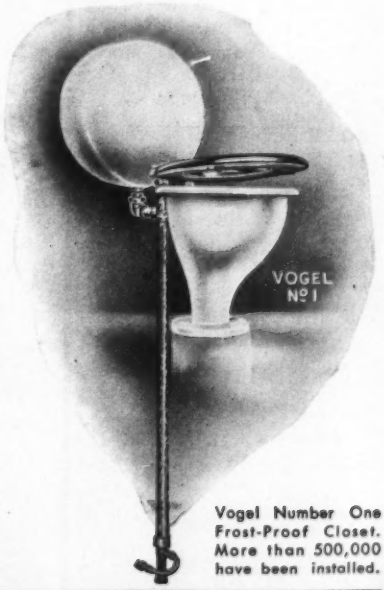
Vogel frost-proof and non-frost-proof closets, some with new tanks and new bowls, but all have the same dependable valves that plumbers have known for more than 25 years.

## JOSEPH A. VOGEL COMPANY

Wilmington, Del. St. Louis, Mo.

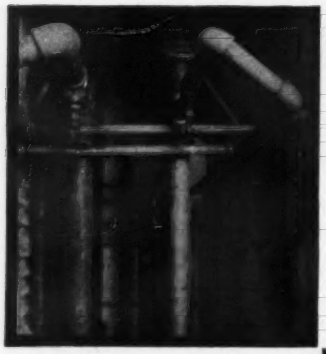
Write for literature on the new Vogel line. Folders and blotters imprinted with your name and address will be sent promptly. Regular use of direct-by-mail brings regular business and profits.

★




Vogel Number One Frost-Proof Closet. More than 500,000 have been installed.

**VOGEL** PATENTED *Products*

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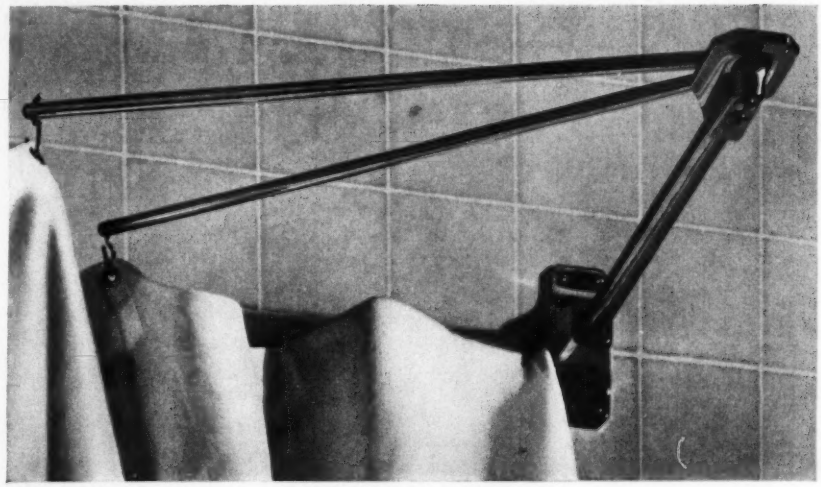
## IN THIS ISSUE


| | Page |
|---|---|
| Business Is Better—1933 vs. 1934 | 19 |
| This Contractor Says He Is "Agog to Go in 1934" | 22 |
| Here Is a Budget for the Plumber and Heating Contractor. By William Morris | 25 |
| Kitchens! Active Interest in Complete Effects | 27 |
| Modern Plumbing Depends on Venting. By R. M. Starbuck | 29 |
| What Size Piping for One Pipe Steam Job. By Wm. W. Stevens | 30 |
| How Wm. Delhagen Planned His Sales Campaign on Gas Ranges | 32 |
| **AUTOMATIC HEAT AND AIR CONDITIONING SECTION** | |
| Air Conditioning Is Basis for Model Home. By W. G. Senft | 45 |
| How to Install Oil Burners Under Gas Boilers | 48 |
| Air Conditioning Job Is Operated with Gas | 50 |
| Venting Causes Trouble in Air Conditioning Job. By Earl Brown | 52 |
| Development and History of Oil Burner Code and Oil Burner Code Authority | 59 |
| Products for the Dealer | 67 |
| **BEER AND BAR EQUIPMENT SECTION** | |
| Beer and Bar Equipment News | 106 |
| Photographs Show Quality Installations | 110 |
| Wisconsin Health Officers Enforce Tavern Rules | 112 |
| Milwaukee Finds Business in Tavern Remodeling | 114 |
| Recommendations for Quality Bar Installations | 117 |
| An Analysis of the Brewers' Code | 121 |
| What Readers Ask | 123 |
| Products for the Beer and Bar Equipment Dealer | 125 |
| **SPECIAL DEPARTMENTS** | |
| Editor's Page | 16 |
| Our Industry | 19 |
| Questions and Answers | 34 |
| Supply News | 77 |
| Convention Dates | 84 |
| New Products for Store, Shop and Job | 85 |
| The Trade | 89 |
| Women's Page | 98 |
| Index to Advertisers | 138 |

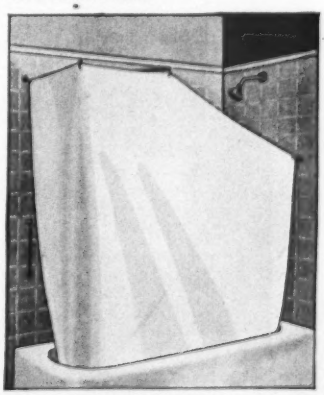
# SCOVILL GIVES YOU A NEW SHOWER-CURTAIN UNIT

## *Its name is* Foldspray



**COMPACT**
Folds back out of the way when not in use. No overhead rod to clutter the room.

**WORKS SIMPLY**
No tugging. The arms glide smoothly into place. Note extra splash protection at the lower end of the tub.



**AMPLE SPACE**
A neat shower stall. Plenty of room inside. No close, clinging, clammy curtains.

### Practical • Profitable • Easy to Sell

TYPICAL of Scovill's steps to help the plumbing contractor is this brand-new sales-builder. To sell plumbing modernization you need something smarter and better. In shower-curtain combinations, that means *Foldspray!* It cuts out the awkward, space-hogging overhead rod. Does away with rings that bind and pull. Closes the gaps between curtain and wall. Study the sketches at the right. See how practical it is!

*Foldspray* is finished in heavy chromium. Comes complete with a guaranteed mildew-proof curtain. It fits any built-in tub — left corner, recess, or right corner. Easy to install. Full instructions furnished. *Foldspray* is exclusive with Scovill, of course (patents pending). There's a market for a novel, practical product like this! Back of *Foldspray*, and all Scovill fittings, are 134 years' manufacturing experience plus rigid quality standards. Get further details about *Foldspray*. Write today!

NRA WE DO OUR PART

**SCOVILL MANUFACTURING COMPANY**
PLUMBERS' BRASS GOODS DIVISION
**WATERVILLE • CONNECTICUT**
*Scovill Flush Valves, Shower, Bath and Lavatory Fittings, Miscellaneous Plumbers' Brass Goods*

SCOVILL

# SCOVILL

# CHICAGO FAUCET NEWS

Issued Monthly by The Chicago Faucet Co., 2700-22 N. Crawford Ave., Chicago, Ill. Vol. 2, No. 3

## LOTS OF PROMISE BUT NO PROPHECY FOR NEW YEAR

### UNDER THE X-RAY THEY'RE ALL ALIKE

We're not talking about human beings; we're talking about faucets. And we're not talking about any old faucets; we're talking about *Chicago* faucets. They all have one thing in common — that fighting heart, a perfected, quickly renewable unit with stamped monel seat and precision workmanship that puts them in a class by themselves.

Of course you know this, but do you get it over to your customers? Outward trim appeals only to the eye, but inward quality speaks today's language of dollars saved.

In the large buildings and institutions —where faucet maintenance cost is carefully weighed and checked—Chicago Faucet, is, as you know, a big name. The basic advantages that have built this reputation can be just as powerful in selling the home owner if properly presented.

Ask for a recently revised folder covering popular replacement faucets. It is particularly useful in putting this basic idea across.

### THE FAUCET VALUE OF 1934

In the quality-at-a-price field there is no doubt that the No. 444 Classic Sink Combination will lead the procession this year as it did last year. It is fully adjustable, beautifully finished, and sold at a price that appeals to the average residence or building owner. There is no better "leader" for the merchant plumber than the No. 444 mounted on its new window or counter display rack illustrated below. Ask for circular covering this new display.

### BROWNIE SHOWER HEADS PAVE WAY

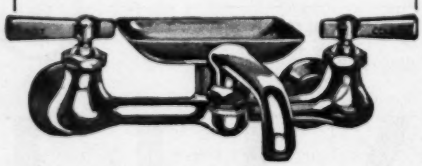
During the past year the Brownie Shower Head has become—as shower heads go—a national institution. Orders for Brownies come from all points of the compass—many from foreign countries. The bulk of these orders are not produced by salesmanship or advertising. Most of them are repeat orders from individuals who tried one or two, and now buy one or two dozen. It's the old story of real merit asserting itself. Brownies give a snappy clean-cut stream, and keep right on giving it. The parts rarely require cleaning, and when they do, the cleaning operation is so simple that it's actually a pleasure to perform it.

Don't brush the Brownie aside lightly with the idea that it is a small item. Remember that it can be made the entering wedge for profitable Add-A-Shower installations. If you are not posted on the Chicago Add-A-Shower line, ask for a complete description.

**The Fast Selling Brownie**

### STRAIGHT EIGHT CHARMS CONNOISSEURS

The Chicago Faucet "Straight-Eight" sink faucets are the real thing in costume jewelry for the modern low back sinks. Rakish, compact, modern in every line and sweep, they pass the inspection of the most critical people. The No. 540, illustrated below, is only 3¼ inches high—adjustable 7¼ to 8¾ inches. Similar models with adjustable hose spray and for three-water plumbing.



We have always fought shy of the editorial tone and viewpoint in the little old Chicago Faucet News. We have made it a point never to "view with alarm" or "look with pleasure" because either position is dangerous. Things seldom pan out the way we mortals expect them to, and there's nothing as hard to stomach as a "dish of crow."

It has been amusing—almost pathetic at times—to see some of our big metropolitan newspapers eating their crow during the last month. Their editorial departments had us in the damnation bow-wows three months ago, and now these same editors are falling all over each other in a scramble for the band wagon. We hope and pray that the band wagon is under way, but as we said at the start—no prophecies for us!

Let's hope it's under way, and if we all hope at the same time it probably will get under way.

One thing is certain: Kid 1934 looked good in the preliminary bouts. If the boy continues to develop he may show some real class in the finals. Maybe he's had a little peek at the snapshot of his great-granddad taken at Atlantic City in 1929 with a chorus girl on each arm and his bank roll flying in the air. Of course the family is a little ashamed of granddad now, and while we wouldn't like to see the kid lose his head entirely, it's about time to raise a kid with some of the old time pep.

So here's hoping—not prophecying, but just hoping—hoping that by March granddad 1929 will turn over in his grave and say in muffled accents, "MY BOY!"

# To Sell Her . . . Tell Her . . .

## "Standard"

**SINKS ARE MADE OF TIME-TESTED ENAMELED CAST-IRON!**

**THERE IS A "Standard" SINK IN A SIZE AND STYLE FOR EVERY PURSE AND PURPOSE**

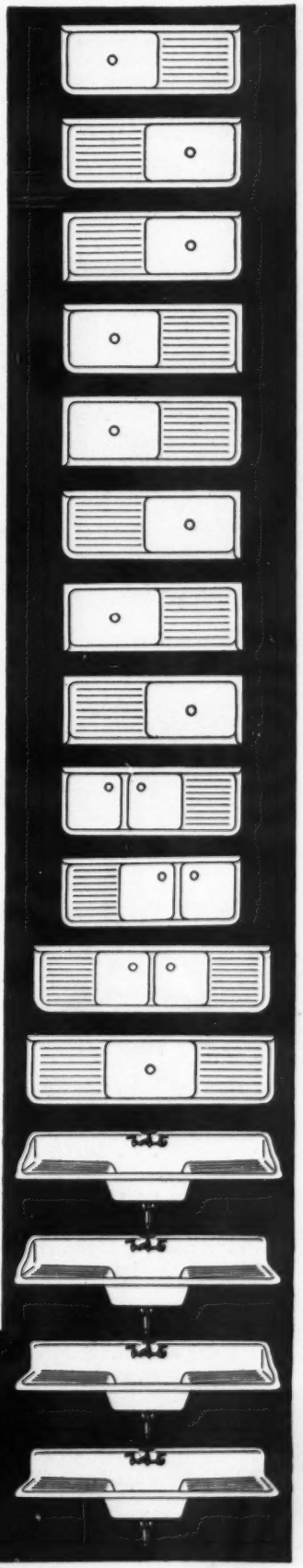
ONE gleaming new fixture in an old home makes all the rest look ancient by comparison...often leading to complete modernization of all plumbing fixtures. Start the new year by inaugurating a campaign to sell "Standard" sinks of time-tested enameled cast-iron to your prospects.

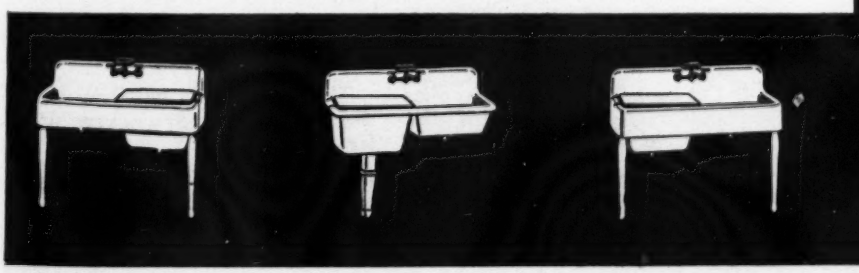
Start your prospects thinking about new "Standard" Sinks by asking—"Is your sink yard-stick high?"..."Do you have a swinging spout faucet with chromard finish?"..."Have you a one-piece sink?"..."Is your sink acid-resisting?"..."Wouldn't you like to have a colored sink?"

Clinch the sale by showing the complete line of attractive "Standard" sinks, any one of which can be installed in short time without fuss or muss.

**Standard Sanitary Mfg. Co.**
**PITTSBURGH, PA.**

*Division of* AMERICAN RADIATOR & STANDARD SANITARY CORPORATION





A kitchen job like this puts a nice profit in the pocket of the plumber who put it in. Monel Metal Sinks, Cabinet Tops and Kitchen Tables all add up into a "sweet" job. Remember there are 57 models and sizes of Monel Metal Sinks and Cabinet Tops, a complete line, designed to meet the requirements of your customers. Send for the 1934 illustrated Sink Catalog. "Whitehead" Monel Metal Hot Water Tanks (range boilers) and "Whitehead" Automatic Storage Water Heaters (with Monel Metal Tanks) are also profitable items for the plumber.

# HAPPY NEW YEAR
## *for Plumbers*

***Monel says it with advertising***
***. . . with help in closing sales***
***. . . with kitchen planning service***

**1934** sees no let-up in Monel Metal advertising of sinks and complete kitchens.

1934 sees no let-down in demand for Monel Metal items you can sell.

1934 sees no slowing up in INCO sales cooperation. First-hand help that turns your prospects into customers.

### *Ready for you to use*

INCO salesmen are "on call" by any live plumber who wants a Monel representative to help him close a sale.

And don't overlook the possibility of using INCO's kitchen planning experience.

Have you a customer who's engaged in a renovizing program? Modernizing, either a single home or whole blocks of apartments?

INCO cooperates 100%. Supplies sketches. Offers your customer the latest ideas in laying out the modern, scientifically planned efficiency kitchen.

This sales help is on tap. Why not use it? Make 1934 a *happy* new year. Write for details.

### JUST TO REMIND YOU

**Monel Metal is everlastingly beautiful. Your customers praise its gleaming, platinum-like finish.**

**Monel Metal resists corrosion. It's easy to keep clean. It's strong. Also tough; stands up under bangs by pots and pans and is not readily marked by them.**

**And the last big thought is: NO IRON TO RUST...Tell *that* to the folks you want to sell.**

**THE INTERNATIONAL NICKEL COMPANY, INC., 67 WALL STREET, NEW YORK, N. Y.**

**MONEL METAL**

MONEL METAL

Monel Metal is a registered trademark applied to an alloy containing approximately two-thirds Nickel and one-third copper. Monel Metal is mined, smelted, refined, rolled and marketed solely by International Nickel.

NRA

*Crane Compeer Lavatory C-182*

# "One good turn deserves another"

The plumbing and heating contractor's appreciation of quality won acceptance for Crane materials. His skillful installations assured the proper functioning of those materials. Together, he and Crane Co. have had a big part in transforming the bathroom from a little white cubby-hole to a more spacious, more luxurious, more profitable room.

This is sound justification for the Crane policy of recognizing the importance of the plumbing contractor in every sale and installation. In the future as in the past we shall build through mutual co-operation.

---

# CRANE

CRANE CO., GENERAL OFFICES: 836 S. MICHIGAN AVE., CHICAGO
NEW YORK: 23 WEST 44TH STREET
*Branches and Sales Offices in One Hundred and Sixty Cities*

VALVES, FITTINGS, FABRICATED PIPE, PUMPS, HEATING AND PLUMBING MATERIAL

# Red Jacket SCORES AGAIN

## Makers of one of the World's Most Popular Pumps in 1933.

Red Jacket Model 1150 complete Water System, 250 gallon capacity at $45.75, was a leader in volume of sales in its field during the past year!

## Now INTRODUCE TWO NEW WINNERS

### Certain to Duplicate the Sales Success of the 250 gal. Shallow Well Pump . . .

1933 was a banner year for Red Jacket Dealers. *They sold pumps—and How!* 1934 is going to be another profitable year for dealers who handle the Red Jacket line.

Two new Shallow Well Pumps have just been perfected—with capacities of 350 and 500 gallons per hour. Both of these new units are available in 12, 42, 80 and 120 gal. tank sizes. Only volume production enables us to offer these super-units at prices that virtually eliminate competition.

Note some of the outstanding features of these sensational new units:—All parts are made of the finest materials obtainable . . . brass, stainless steel, bronze, etc. They are compact, beautifully designed units, practically noiseless and exceptionally economical to operate. All these features assure long life and trouble-free service.

### ALL MODELS Now Equipped with Either Electric Motor or Gas Engine

Another score for Red Jacket! Dealers can now sell any type of installation. There's a Red Jacket Shallow or Deep Well Pump at a price to meet every requirement up to 10,000 gallons per hour. *Write for full Dealer's proposition today!*

**RED JACKET MANUFACTURING CO., DAVENPORT, IOWA**

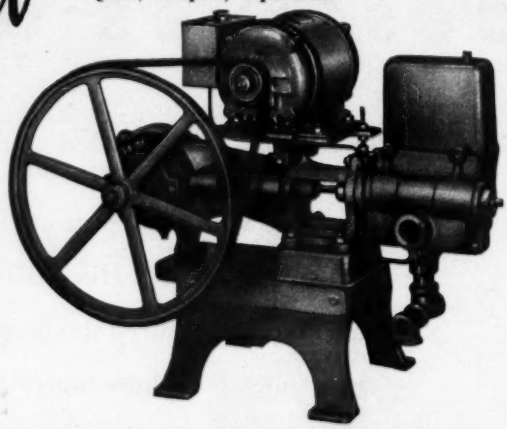
*World's Largest Exclusive Manufacturers of Water Systems*

**DORWARD-Red Jacket**

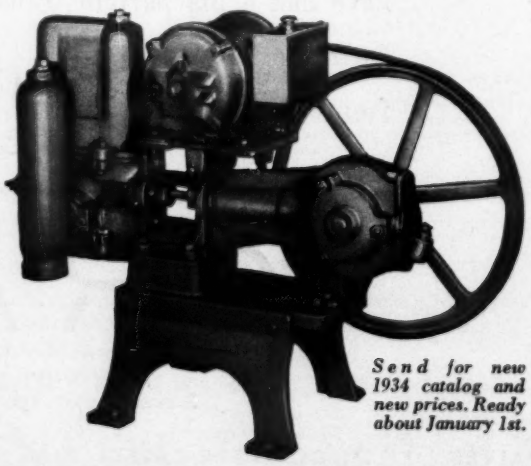
WATER SYSTEMS AND DEEP WELL POWER HEADS

*New*

Model 1153C. Has 350 Gal. capacity—either gas engine or electric power. Quiet, compact, dependable.



Model 1155C. Capacity of 500 Gal. per hour. Gas engine or electric motor drive. A powerful economical unit.

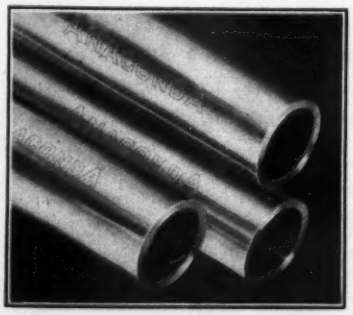


*Send for new 1934 catalog and new prices. Ready about January 1st.*

ANACONDA
from mine to consumer

# "Now...they're sold on Brass"

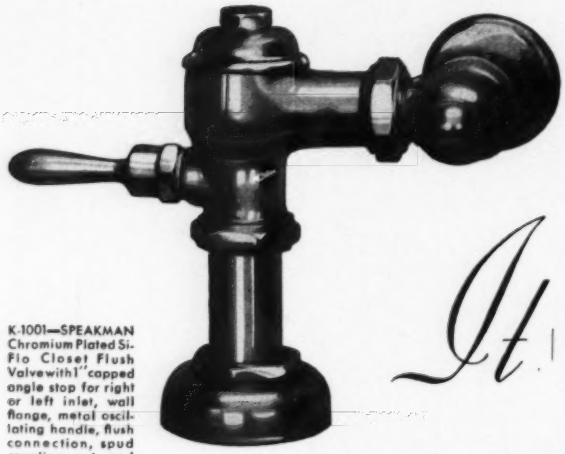
"After spending more money for rust repairs than the initial 'saving' rustable pipe seemed to offer, they are sold on *Brass* Pipe . . . "



Most home builders and owners know that pipe that rusts sooner or later causes expense. They know, too, that Brass Pipe *cannot* rust . . . that the name "Anaconda" stamped every foot means quality safeguarded throughout manufacture. It is worth your while to take advantage of this public acceptance.

Leading plumbing supply houses carry Anaconda 67 for normally corrosive water, 85 Red-Brass Pipe for highly corrosive water, and Deoxidized Copper Water Tubes. The American Brass Company, General Offices: Waterbury, Connecticut.

# ANACONDA BRASS PIPE



K-1001—SPEAKMAN Chromium Plated Si-Flo Closet Flush Valve with 1" capped angle stop for right or left inlet, wall flange, metal oscillating handle, flush connection, spud coupling nut and flange for 1½" top supply. *(Pat. Pend.)*

*It WHISPERS never* **SHOUTS**

Compact piston unit of SPEAKMAN Si-Flo Flush Valve—the complete working parts. Can be replaced at almost negligible cost, and in five minutes.

# Speakman Si-Flo Flush Valve

All line noises—hissing, screeching noises that cause continual annoyance and embarrassment, are stopped from forming when you install the Speakman Si-Flo Flush Valve. So is the "bump" which occurs when noisy flush valves are seating.

This new Si-Flo Flush Valve will give long-awaited relief to thousands of persons in residences, hotels, and apartments, who have asked that something be done about noisy flush valves.

The Si-Flo fits all makes of closets. It roughs in on standard measurements. And, important from the service angle—is the compact piston unit—the only moving part of the Si-Flo. This can be replaced in five minutes at a most nominal cost.

*Watch for the new quiet Speakman Closet Combination the Si-Flo . . .*

Your wholesale supply house is now stocking the new Speakman Si-Flo. Ask us for literature, imprinted with your name and address. Send this to your customers who have flush-valve-equipped closets, for, ten chances to one, they are being annoyed by valves that broadcast every time the closet is used.

SPEAKMAN COMPANY
Wilmington, Delaware

## SPEAKMAN *Showers & Fixtures*

# An Important Announcement about ACE Tank Fittings

Since their introduction some years ago, ACE Tank Fittings manufactured by Nibco have won for themselves a wide acceptance among wholesalers, plumbers and users. It has been demonstrated by unprecedented sales that the general public is willing to pay a little more to get a product of outstanding quality.

With this background, we are pleased to announce that our plans for 1934 include a much greater effort to convey to the general consuming public the superior advantages of ACE Tank Fittings. Dealer help material, unusual for items of this class, is now in process of preparation.

This is the line to count on for 1934. The price and resale policies assure you of an adequate profit. The quality and advanced features of the products themselves assure you of satisfied customers.

If you are not already acquainted with ACE Ball Cocks, Trip Levers and Flush Valves, ask your jobber about them. If he cannot supply you, write direct to the factory and we will see that you are taken care of.

NIBCO

**Bronze Valves and Copper Fittings**

## NORTHERN INDIANA BRASS COMPANY

**ELKHART, INDIANA**

# Watrous

# FLUSH VALVES & LIQUID SOAP FIXTURES

IMPERIAL FLUSH VALVE

MAJESTIC FLUSH VALVE

JEWEL FLUSH VALVE

IN BOTH these branches of the Watrous line of plumbing fixtures, the most up-to-date standards of service are represented. The efficient and dependable operation of the different models maintains a constant demand for them throughout the United States and foreign countries.

## WATROUS FLUSH VALVES

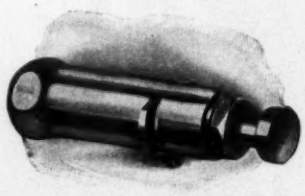
In all Watrous flush valve designs, economical action is assured by safeguards against water-waste. The length of flush is accurately regulated according to the needs of the fixture. Adjustment is easily made from outside, without the need of turning off the water.

Two popular piston types and one diaphragm type (the Majestic) are shown on the left. The latter has 25 per cent greater diaphragm area than the ordinary diaphragm-valve.

## WATROUS LIQUID SOAP FIXTURES

This well known line of soap dispensers has for many years been in wide demand for use in lavatories, bathtubs and sinks in the washrooms of hospitals, hotels, schools, factories, etc. The new models are designed in accordance with the accepted styles of modern architecture. They deliver a fixed amount of soap into the operating hand. Finished in chromium plate or heavy nickel. Three of the designs are shown on the right.

*Write for catalog 433, giving full details of the entire line of Watrous plumbing fixtures.*



For horizontal operation with gravity systems.

For concealed installation on lavatory top.

For attachment to the back or wall of lavatory.

## THE IMPERIAL BRASS MFG. CO.

1231 West Harrison Street, CHICAGO

# 5000 LBS. PRESSURE
## AND NOT A DROP LEAKS THROUGH

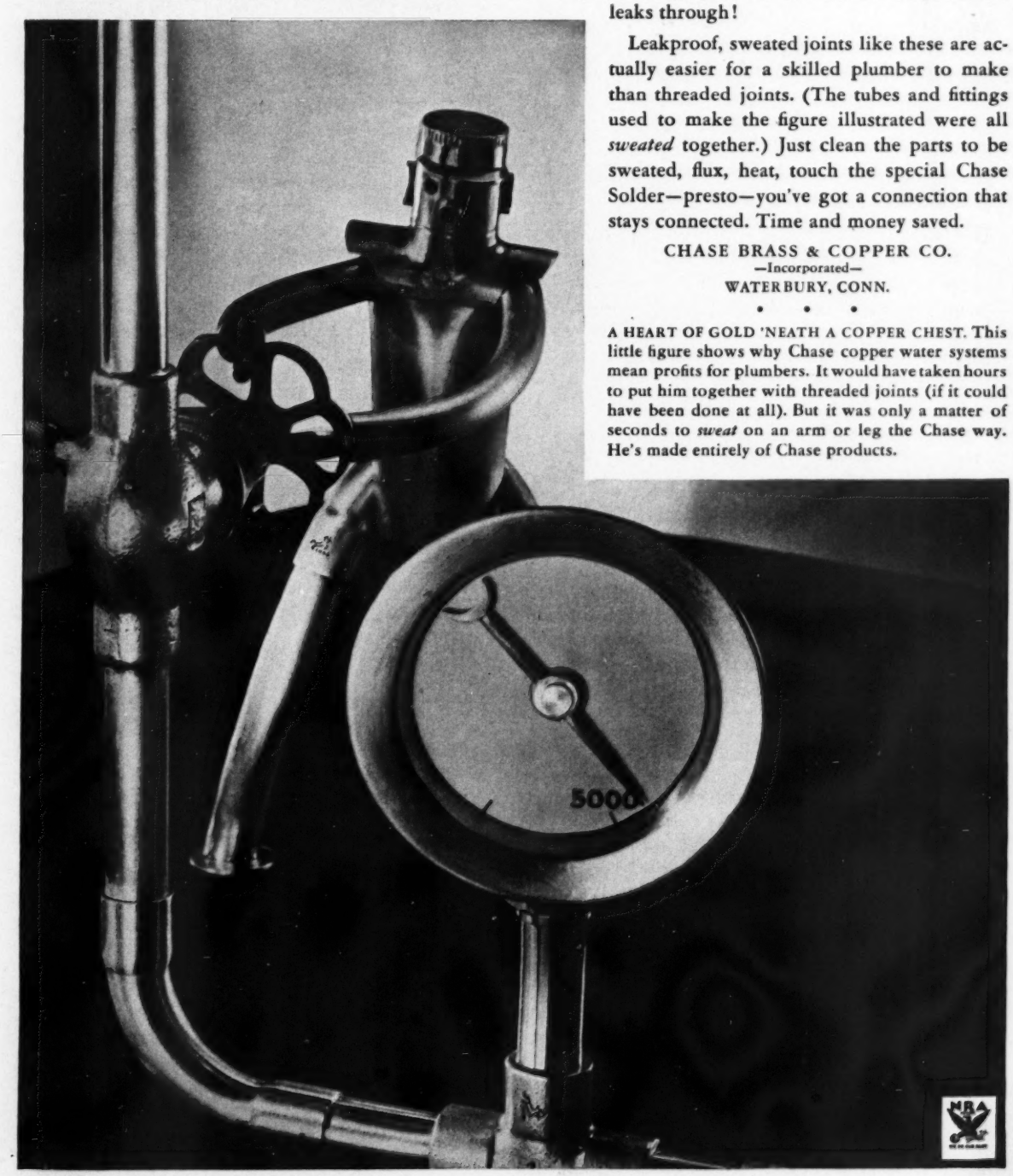
Just one minute, please. We're going to shoot 5000 lbs. per square inch into an assembly of half-inch Chase *Rigid* Copper Water Tube and Sweat Fittings. There it goes—two and a half tons on every square inch—and not a drop of water leaks through!

Leakproof, sweated joints like these are actually easier for a skilled plumber to make than threaded joints. (The tubes and fittings used to make the figure illustrated were all *sweated* together.) Just clean the parts to be sweated, flux, heat, touch the special Chase Solder—presto—you've got a connection that stays connected. Time and money saved.

CHASE BRASS & COPPER CO.
—Incorporated—
WATERBURY, CONN.

• • •

A HEART OF GOLD 'NEATH A COPPER CHEST. This little figure shows why Chase copper water systems mean profits for plumbers. It would have taken hours to put him together with threaded joints (if it could have been done at all). But it was only a matter of seconds to *sweat* on an arm or leg the Chase way. He's made entirely of Chase products.




*Good brass and copper products*

**CHASE RIGID COPPER WATER TUBE AND SWEAT FITTINGS**

Thanks:
Your articles on automatic heat, sprinkler systems, etc., have been very interesting. I read each issue from cover to cover.
F. B., Montana.

# BETWEEN OURSELVES

## More Confidence

WHEN 1934 crossed our doorstep and 1933 disappeared through the back door, he found a cheerful welcome. One senses everywhere the more optimistic and confident feeling prevalent all over the country. The past few years have not proved of the kind whose going is regretted. The new year comes on a wave of confidence which promises much.

## Better News

THE building industry is providing better news—news in the form of contracts both from public and more recently from private sources. The code discussions have brought about an intensive self-analysis by every branch of the industry. Even if all of the desirable results from the codes are not secured in the future, that analysis is strengthening the hands and the backbones of those who are trying to bring more sensible methods into play.

## More Jobs

IT is pleasant, in this issue, to celebrate the coming of a new year with its opportunities for both readers and ourselves. We give, in the first few pages, a pictorial and word account of the changes which the last 12 months have brought. Unemployment to millions has given way to jobs. Financial uncertainty has yielded to greater assurance. Buying power has increased. The effects of the world upturn which started 18 months ago are at last becoming apparent to more of us.

## Ready for 1934

NEXT in order but equal in importance is the story, in a contractor's own words, of how he has prepared for 1934. "All Agog to Go" tells the story. He has been through the pressure to reduce expenses but he tells what he held on to as vital to success when the turn came. He managed to keep up a front even when the pressure was almost overpowering. Now he has hopes and plans for the new year which he shares with you—and he is a reader who has the record of working out successful and frequently inexpensive plans.

## Draws the Crowds

ANOTHER reader tells you, through these pages, of a plan he has just carried through. An unusual show window proved an effective magnet to draw crowds both to his window and into his store. The job of naming the display was turned over to these prospective customers and added more interest. A cooking school tie-up piled up more attention until, as he tells you, he was well satisfied with the results from his inexpensive but effective sales idea.

## Turning to Kitchens

A FEATURE on "Kitchens" will draw your attention. It reflects the greater attention which so many companies are giving to providing the American housewife with greater conveniences. It also reflects their appreciation of the impending opportunity for more sales in the home market. And the results of this study of the kitchen are worth your own study.

## Uses a Model Home

IN the AUTOMATIC HEAT and AIR CONDITIONING section, the dealer in these essential fields will find much of interest which he can use. The menu is varied to suit everyone's taste. In one case, we find the model home idea being used to draw thousands to a new house in which air conditioning is the big feature. The plan, particularly when a number of related groups co-operate, is comparatively inexpensive and right now with the market opening up and air conditioning attracting more and more attention, the plan is worth study because it can be used in nearly every city.

## Oil Under Gas Boilers

OUR mail reflected an increasing interest in the question of using oil burners under gas boilers. Consequently, whether you are one of those who wrote us or are none of those who want to know more about this subject, you'll find an authoritative account of just what is being done, and of how it is being done.

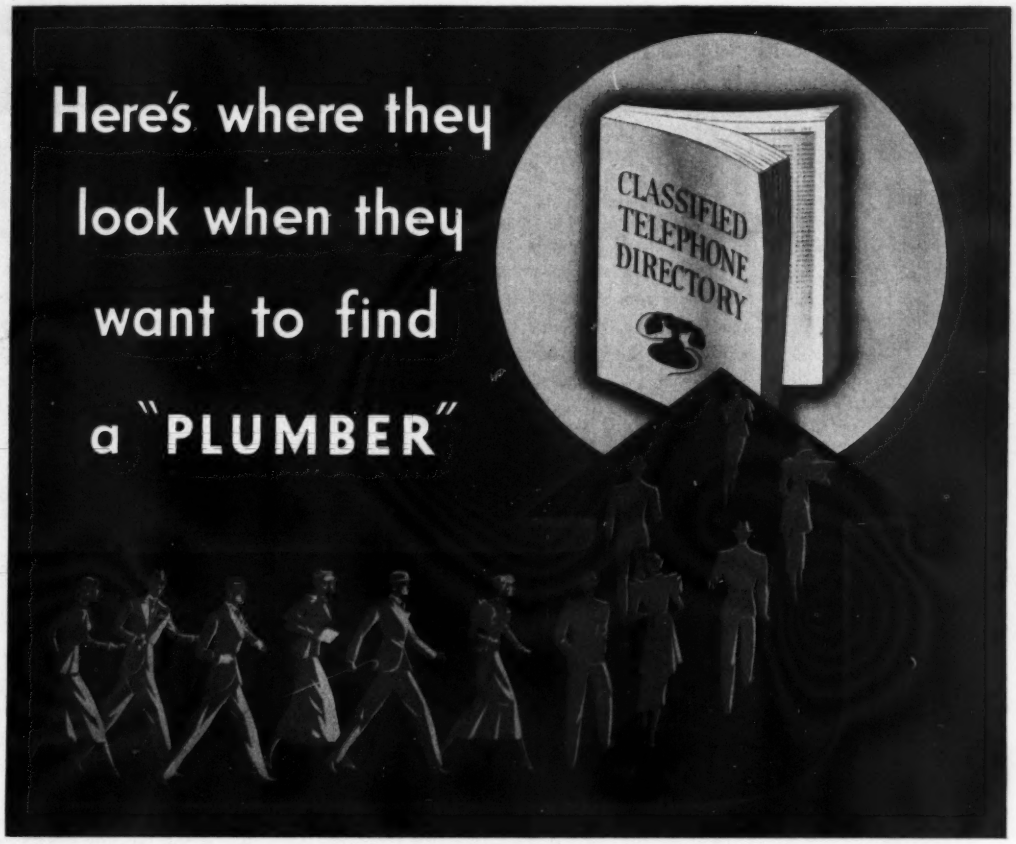
## Enforcing Sanitary Rules

THE tendency toward insistence by health officers on better standards of sanitation in the old and new restaurants where beer is being served, is emphasized in an article in the BEER and BAR EQUIPMENT section. Any slackness in enforcing these essential standards which came about in the early days of beer's return, is being met now as health authorities and the forces of the law have had time to catch up with conditions. And these newer and enforced standards mean work for the dealer in sanitary equipment.

## For the New Year

DOMESTIC ENGINEERING sends each of its readers best wishes for a Happy New Year.

*Your Editor*




## Proof that the classified directory is an especially good buy for YOU

A nation-wide Bell System Survey shows that the classification "PLUMBERS" is more frequently referred to than any other in the classified telephone book. That means that the classified directory is an especially good buy for plumbers and heating and ventilating contractors. When you consider that more than 85% of telephone subscribers use the classified directory, its value becomes even more obvious.

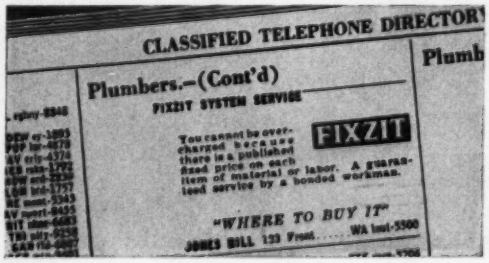
Are you cashing in on this opportunity; are you taking FULL advantage of the sales possibilities afforded by the classified telephone book? Are you ADEQUATELY represented in your directory?

For instance, Trade Mark Service ("Where to Buy It" listings) would definitely identify you as the local dealer for the nationally advertised brands you carry. Consumers who want a particular brand simply look for the manufacturer's trade name and are directed to *you*. Such a listing costs you only a few cents a day, since most manufacturers will gladly provide the heading on request.

Be sure you are *adequately* represented in the "yellow pages" of the telephone directory. For information, call your local telephone company and ask for the Directory Representative.

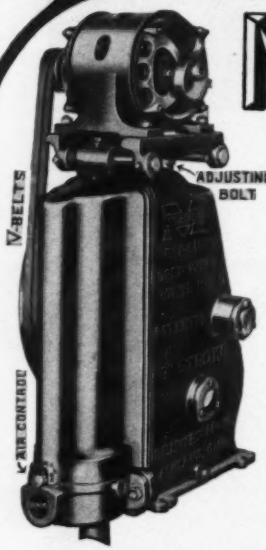
### TWO SERVICES AVAILABLE IN CLASSIFIED TELEPHONE BOOKS

● *TRADE MARK SERVICE ("Where to Buy It"). Manufacturer provides trade mark heading. Authorized dealers list their names below.* ● *INFORMATIONAL LISTING. A one-inch space in the listing column.*



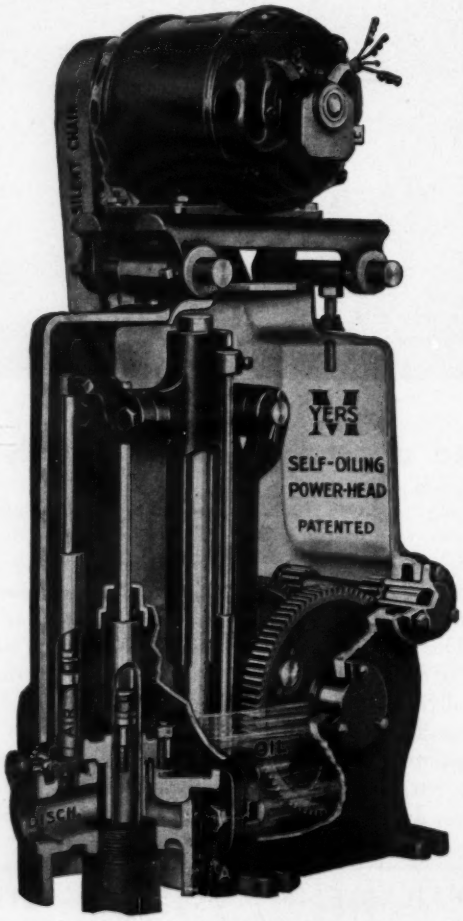
# YEAR THROUGH *Sales-Profits*

## MYERS SELF-OILING POWER PUMPS

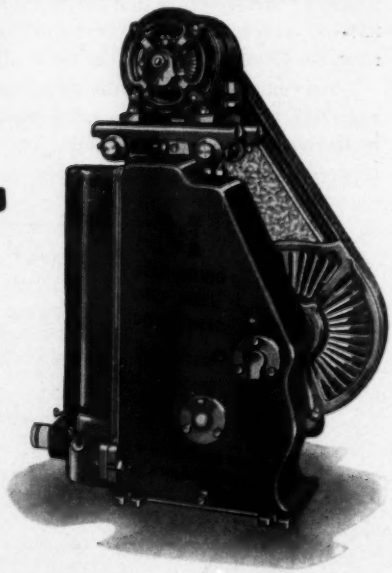



With the coming of January inventories are again in order. The old year is history. The story has been written in profits for some and in losses for others. Whatever the records show, one way or the other, the fact remains that the year just closed has witnessed marked improvements in Myers Self-Oiling Power Pumps and Water Systems that will continue to fortify their position of leadership and further enhance their sales and profit values for those who look forward to widening their business opportunities during 1934.

JANUARY
FEBRUARY
MARCH
APRIL
MAY
JUNE
JULY
AUGUST
SEPTEMBER
OCTOBER
NOVEMBER
DECEMBER
*Are*
*Pump*
*Months*




STYLE
QUALITY
PERFORMANCE
DURABILITY
PATENTED
FEATURES
And
SIZE RANGE
Of
MYERS PUMPS
*Make*
*Selling*
*Easy*



Every dealer who reads this advertisement recognizes the importance of water and the part it plays in the daily activities of his community. City, town, village—home, farm, factory—water comes first, and dependable pumping equipment to secure it follows a close second. Here Myers Self-Oiling Power Pumps and Water Systems step in and support their claim for year through Sales-Profits with a complete style and size range for sale and installation any day of any month during the entire year.

Start the New Year right by writing us for catalog and complete information.

**THE F.E.MYERS & BRO. CO. Ashland, Ohio**
ASHLAND PUMP AND HAY TOOL WORKS

# OUR INDUSTRY

*January, 1934*

# Business Is Better

This industry of our's a year ago reflected the disorganized conditions of the country as a whole, conditions which broke out a few weeks later in bank failures and finally in the bank holiday. With money tied up or in hiding, only a thin trickle was available for our products, in spite of their essential value to every American.

Today, our industry again reflects a nation wide condition and this time the reflection is more pleasing to look at and more encouraging to study. Bank deposits are now guaranteed in most cases instead of their loss being anticipated. The trickle of expenditure for our products has become a noticeable stream, first through federal funds priming the pump but in the past few months with the growing help of private resources.

Buying power has been regained by millions who a year ago were without jobs. Prices of most of our products are higher although as the chart in our last issue showed, they are well below the 1926 level which is said to be the national goal. The market's pick-up last summer brought profits to some for the first

time in months. The curve of output, of shipments and orders as it rose a few months ago revived the courage of those who had grown accustomed to think only in negative terms. The falling off which followed checked speculation but not basic confidence. New courage, new products unite to greet the New Year.

* * * * * *

**BUILDING**

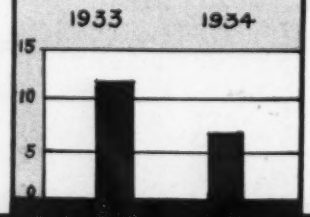
*As 1933 opened building was still sliding ... but it's going up now!*

**HOMES NEEDED**

*Need for new homes is put at 800,000 to 1,300,000 The market needs many thousands more today than a year ago!*

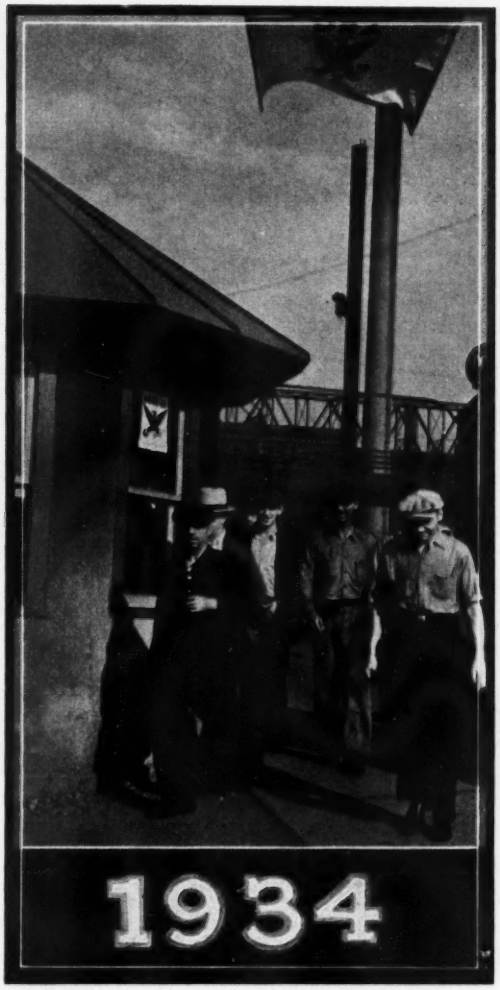
**PURCHASING POWER**

*A year ago 12 to 13 million were out of work. Five million have jobs now!*



NO INDUSTRY can survive on the purchases of idle men. Those consumers shown above offering their labor for $1.00 a week can contribute nothing to the survival of business. While even in the face of conditions prevalent at the opening of 1933 unemployment was fortunately in the minority, yet this group serves to typify the depths to which purchasing power had dwindled and the corresponding difficulties which all industries, including our own, had to overcome.

The past twelve months have brought a striking reversal of direction. Bank holidays can be foreseen from the calendar and not in our own fearful anticipation. Predictions of better times ahead have been at a wholesale discount for many long months. The clear trend of business in recent months—with the building industry laggardly but finally taking its place in the procession—is responsible for the confidence and courage which marks our entrance into 1934.

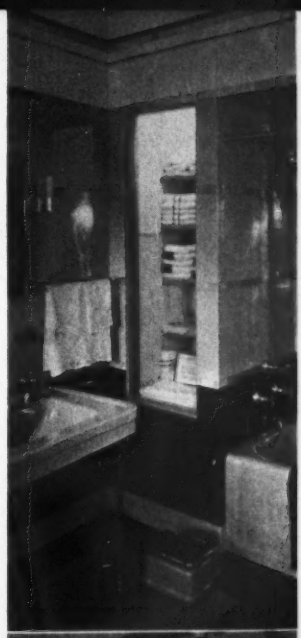


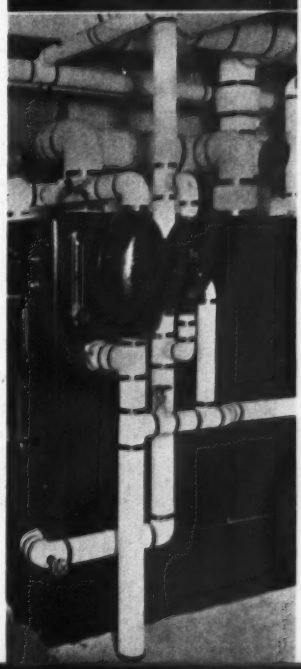

PRESIDENT ROOSEVELT in his address to the newly convened Congress, made just as this is being written, brings the assurance of a continued effort to go forward along the routes which all of us have been exploring for the past few months.

The new year brings to the dealer in plumbing and heating products the confidence which the relief of unemployment, the greater stability of jobs and the general feeling of new hopefulness inevitably inspires. To the manufacturer and wholesaler these improved conditions indicating an enlarging purchasing power justify positive planning to prepare for the greater business which 1934 promises.

The code programs have brought our industry's branches into closer harmony. Products of our industry are still essential. 1934 will reward those who go after business.







# This Contractor Says he is "Agog to

*The lessons and experiences which were encountered in 1933 provide the background for the*

THERE is no particular reason for the first of January to be other than just another first of the month, and yet to an average business like mine—and perhaps like other heating and plumbing contractors—it is a high point toward which we bend our efforts and from which we see new ways and means of getting business leading out into the vast unknown of the New Year. Our practice is to pause on this high point and take stock of ourselves and our business, past, present, and future.

Previous to 1929 we were doing a tremendous business for a young concern, but we were letting the cost of doing it run away with us, and while past experience has taught us many things, perhaps the most outstanding of all was that we must not let our overhead eat up our profits. We take that very costly lesson out of the bag and review it every now and then so that we may be sure that we have learned it well.

Awaking to the realization that we could not go on as we had been going, spending extravagantly for equipment, carrying large stocks of supplies, employing salesmen who did not sell, putting on a lot of expensive advertising that did not produce, fortunately we had sense enough to draw in our horns, not as soon as we should have, but before it was too late. Foolish pride in doing things in a big way and continuing to do them in that way long after it could be afforded, wrecked many businesses. We are thankful that such an attempt to keep up appearances did not deter us from making drastic retractions and making them soon. We cut down our force as far as we could without impairing its basic efficiency, we discontinued certain conveniences such as telephone extensions, unnecessary lights, etc., moved our residence from an expensive apartment to a very modest one, seemingly small items to bother about but that cost no small sum over a period of a year.

One item of our overhead that we made sacrifices to keep, however, was our excellent business location on the main business street in our city. We felt that if we were to stay in business at all, we could not afford to let it go—that if we moved up an alley somewhere, people would soon forget us—and we still have reason to believe that we were right about that.

The second big lesson that we learned was as to the kind of business worth having. We were so drunk with the idea of getting business that we did not discriminate as we should have between the desirable and the undesirable kinds of business. Business and business and more business was what we thought we wanted, and our job signs were to be found on three-fourths of the new construction projects in town. In our zeal for getting contracts for new work happily we did not overlook the importance of going after modernization and repair business, but we did fail to recognize the fact that it was on this latter type of business that we were making our clearest profit, a profit that at times really carried the business and helped to take care of the "breaking even" or the losses on our new work.

As the saying goes, "It's all in the frame of mind," and while we do not entirely agree with that line of reasoning, there is much truth in it. Having finally

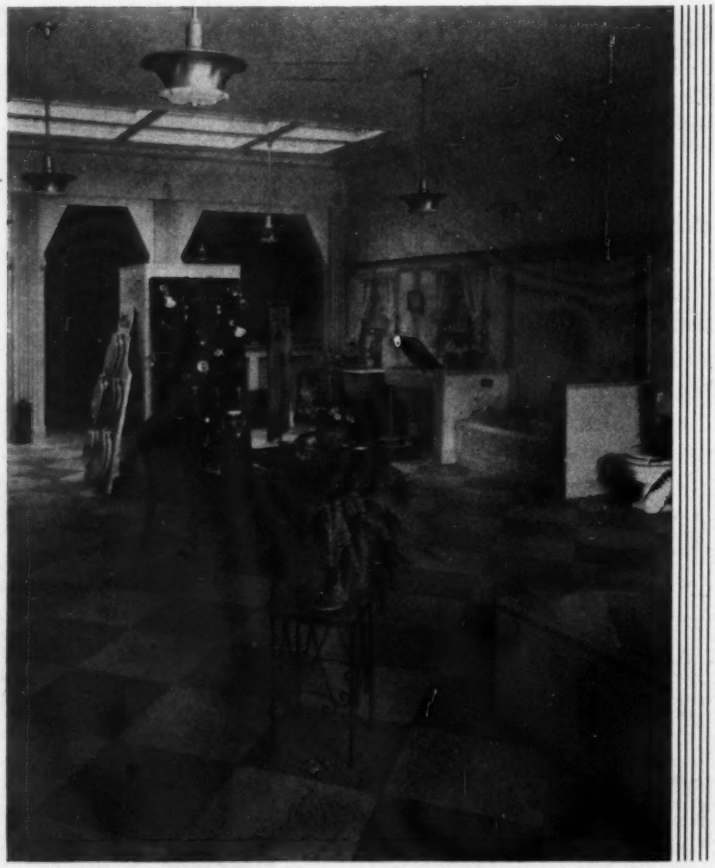
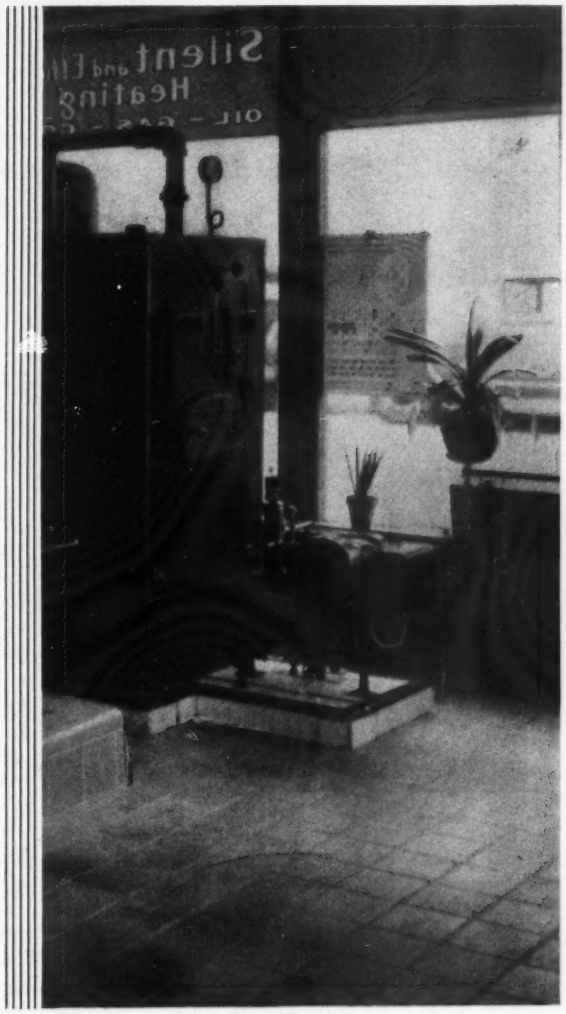


**Fig. 1—"One item of our overhead that we made sacrifices to keep was our excellent business location on the main street in our city"**

**Fig. 2—"We swear by our location and intend to continue in it, not because it is the only good one in town but because it is the best for us." The window at the right is typical**



reconciled ourselves to the fact that there indeed was a depression, we kept on doing business at the same old stand but after a very conservative fashion. For the past year especially we have traveled mentally on pretty much of an even keel. We had overcome our feeling of panic and had come to realize that if we thought we could go out and get five or six plumbing or heating orders in a day, we could, but by orders we do not mean contracts for new plumbing and heating work. The business that we have had has been almost entirely repair business, grate bars, boiler sections, frozen pipes, and the like of that, with now and then an entire new boiler or perhaps a brand new water heater thrown in for good measure. We have managed to keep our old customers numbering around three thousand with a loss of only a very trifling percent, and what work they have had done, we have done it. We have gone out after new customers by phone calls, cards, letters, keeping our name before them in every inexpensive way that we could think of. We have plugged for work from real estate concerns, apartment owners, boiler insurance companies, institutions, friends, acquaintances, people we did business with, everybody—everywhere, and as a result we have been able to keep ten men busy all fall doing nothing but repair work. As an example of our efforts take the dairy from whom we had bought milk for a number of years. We contacted them by letter and in person for a long time with no results, but we knew that somewhere or at some time they were going to have plumbing or heating work done, and that sooner or later we would get in on it if we did not give them a chance to forget us. Finally a short time ago we broke down their resistance to the extent of a hundred and fifty dollars worth of work on their high pressure boilers. On such work we have been able to make a little money, and as we are not a charity organization and making money is really the whyfor of our being in business, we end the year in very good spirits and all set for whatever lies ahead of us.

# Go in 1934"

*very progressive 1934 plans which are outlined in this article. Remodeling is listed first.*

And now for the future and more particularly the very immediate future—the year 1934. We are sure that it holds great possibilities, and we are anxious to plunge right in and see what we can get out of it.

While we intend to try new ideas along many lines, we are still agreed on two items that have worked to our advantage over the last ten years. First, we swear by our location and intend to continue in it not because it is the only good one in town but because it is best for us by reason of the fact that we have been in it long enough to have become somewhat of a fixture in the minds of the citizens, who, meaning no discredit to them, are inclined to have one track minds, and when it comes to plumbing and heating many of these minds lead to our door. So far be it from us to sidetrack them!

Second, we expect to continue to put special stress on our repair and modernization business. While we will never refuse to figure a new job, we stand small chance of getting it while there are still to be found those short-sighted contractors who place more importance on having their names on a large project and losing money on it than in accumulating a few thousand dollars by cleaning and repairing a few dozen boilers and perhaps selling a few water heaters and bathroom fixtures. We foresee possibilities for more and more replacement and reconditioning business during the coming year, as plumbing and heating equipment everywhere is in dreadful condition by reason of neglect and lack of funds in

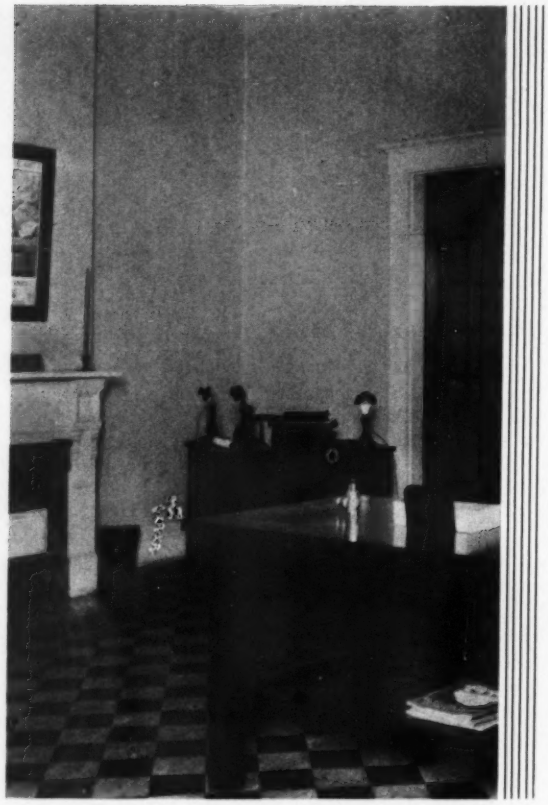


**Fig. 3—Here is one corner of the author's office which he has made sacrifices to maintain. His 1934 plans call for a continuance of these facilities**

recent years, but as money loosens up and other businesses get going, there are sure to be large sums spent with the plumbing and heating man.

For example, take several reconditioning jobs that we have done recently for a bank. This bank had foreclosed on certain business property, and the buildings had been vacant for the last several years. They were in a terrible state of repair and before being rented had to be put in good condition. In one the last tenant had failed to drain the hot water heating system, and as there was not enough left of it to salvage, it was necessary to install an entire new heating system. In another the boiler needed new grates, new smoke pipe, the radiators needed repairs, the water heater had been stolen and required replacement, and an additional lavatory was installed.

It is the same way with privately owned property. Much of it has been vacant or rented to tenants who have let it deteriorate. In running through our job records since the first of September, I have counted 275 repair orders for everything from a gage glass up to a 48-in. boiler section, and I wish that I had the time to count up the number of grate bars we have sold. They must run into the hundreds, too, totaling thousands of pounds of pig iron.

We have been heard to say that if we could only get a goodly share of the repair business available in our territory we would not have to worry about anything else, and we still feel that way about it and intend to see that we do get it during 1934.

**Fig. 4—"We have become somewhat of a fixture in the minds of the citizens and when it comes to plumbing and heating, many of these minds lead to our door. Far be it from us to sidetrack them!"**

# Here Is a Budget for the Plumber and Heating Contractor

*"The budget is a brain on paper"*—

By William Morris

A FORECAST of the year's income and expenses is called a budget; or, to be more specific and definite, it is an estimate, properly classified, of the income and expenses of your business for the forthcoming year. Its purpose is to plan expenses and keep them safely within expected income.

In his excellent book, "The New Way to Net Profits," Fred W. Shibley, Vice President of the Bankers Trust Company, New York City, says: "While the fundamental principles of all budgets are the same, care should be taken that the business is not distorted to adapt itself to the budget. A particular budget should be made to fit a particular business, and for that reason *the home-made budget is always the best.*" This is true, and you need have no hesitancy in proceeding with the preparation of your own budget. The first one you make may not be perfect, but the imperfections will come to light, and it will then serve as a reliable guide for the future; it will aid you in forecasting financial needs, and serve as a basis upon which an equitable apportionment of income may be made.

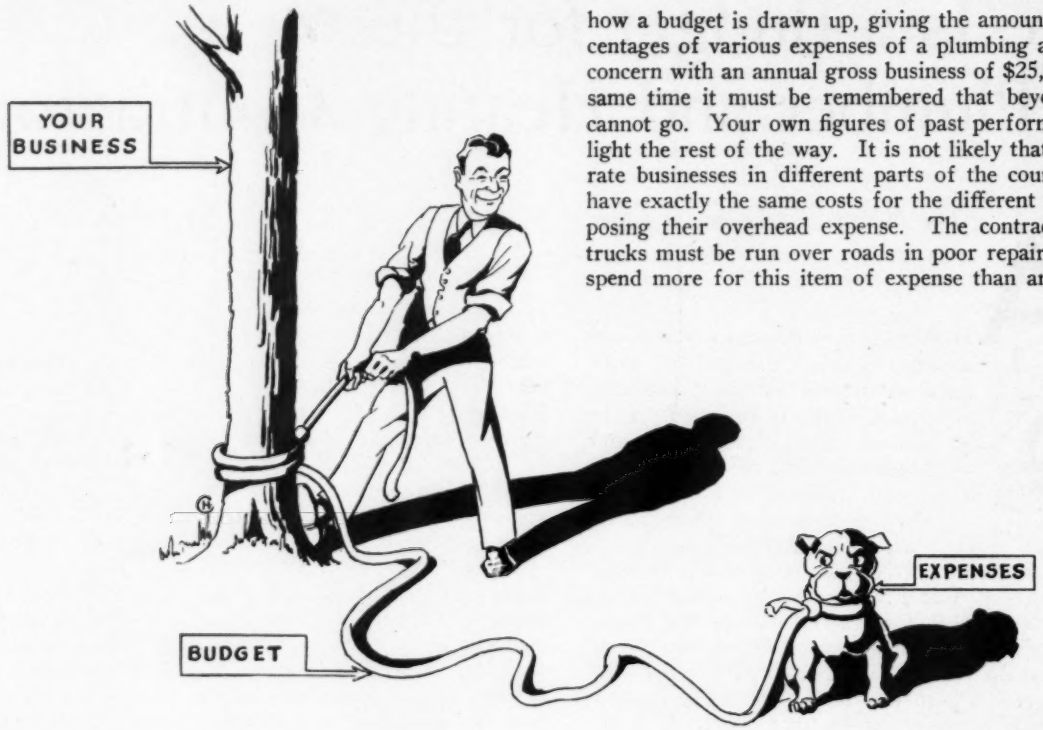
The drawing up of a family budget, where there is a fixed monthly income, is a comparatively simple matter. In business, there being no fixed income, a new factor is injected that requires careful consideration. In the latter case, the income and expenditures of the preceding year must serve as a basis for those of the current year. Here again is brought home the necessity for the keeping of accurate records, for it is to them we must look for this information. Usually it will be found there was a normal average monthly income which can be relied upon with some certainty, thereby making it possible for you to plan expenses accordingly.

**1934 BUDGET**

| | | | | |
|---|---|---|---|---|
| Total Annual Business | | | | $25,000.00 |
| | | Per Cent | Yearly | |
| Material and Labor | | 70. | $17,500.00 | |
| Profit | | 5. | 1,250.00 | |
| | Monthly | | | |
| Overhead Expense | | | | |
| Rent | $ 40.00 | 1.92 | 480.00 | |
| Light | 6.00 | .288 | 72.00 | |
| Telephone | 15.00 | .72 | 180.00 | |
| Office Salaries | 65.00 | 3.12 | 780.00 | |
| Stationery and Stamps | 8.33 | .4 | 100.00 | |
| Advertising | 20.80 | 1. | 250.00 | |
| Interest | 30.25 | 1.452 | 363.00 | |
| Insurance | 20.83 | 1. | 250.00 | |
| Legal Expense | 6.25 | .3 | 75.00 | |
| Freight and Express | 6.25 | .3 | 75.00 | |
| Bad Debts Chg'd Off | 20.83 | 1. | 250.00 | |
| Renewals of Equipm't. | 12.50 | .6 | 150.00 | |
| Transportation | 2.08 | .1 | 25.00 | |
| Service | 16.67 | .8 | 200.00 | |
| Trucks | 50.00 | 2.4 | 600.00 | |
| Truckman | 41.67 | 2. | 500.00 | |
| Proprietor's Salary | 141.67 | 6.8 | 1,700.00 | |
| Miscellaneous Expense | 16.67 | .8 | 200.00 | $25,000.00 |
| | $520.83 | 100.% | | |

The *percentage* an expense bears to the total income is important, for it is this part of the budget that makes it elastic and applicable should there be a decrease or increase in business over the past year. For example, in the illustration given herewith, it will be noted $500 is charged annually against overhead expense for truckman. This amounts to 2 per cent of $25,000, the total yearly business. If the business were doubled the percentage would remain the same but the amount allowed for truckman would also be doubled. His wages are $5 a day. Under this schedule he averages about two days a week in the shop and at trucking; that is, doing work chargeable to overhead expense. At present the balance of the time he is used to install septic tanks, excavate ditches, and work of that kind, his wages being charged to "Labor." Were business increased, more of his time would be required at work chargeable to overhead expense, and the same percentage of total business provides for this. Naturally, when business increases, the amounts required for the various items of expense cannot be kept within the figures allowed. More gas and oil will be used, more tools and tires worn out, increased use of the telephone will result; in short, overhead expenses will advance all along the line. There would also be a change should a decrease in business occur, but of course in the other direction, expenses diminishing. At first glance this would seem to upset the whole idea of a budget where there is no established income. And it is right here where the value of the percentage becomes apparent. It is at once the anchor, the chart, and the compass. It will prevent you from being tossed about on a sea of doubt, and keep you pointed in the right direction.

The contractor whose budget is shown herewith owns his shop and office, but rent is included in his overhead expense equal to what he could get for the space if he rented it to someone else. Taxes, insurance, repair expense, and interest on the mortgage (if any), as well as cost of heat, do not appear, as these are expenses to be taken care of by the contractor in his private capacity as owner, and are separate from his business. This simplifies the records and insures a correct and proper charge against the business for this item.




how a budget is drawn up, giving the amounts and percentages of various expenses of a plumbing and heating concern with an annual gross business of $25,000; at the same time it must be remembered that beyond that it cannot go. Your own figures of past performance must light the rest of the way. It is not likely that two separate businesses in different parts of the country would have exactly the same costs for the different items composing their overhead expense. The contractor whose trucks must be run over roads in poor repair is sure to spend more for this item of expense than another who is fortunate in having good highways. Rents are not the same, etc. It is plain, therefore, that one must keep careful records to ascertain exact costs, but once you have these they will serve as a safe guide for the future.

As an explanation of certain other items appearing in this budget may be desired, I would add that insurance covers stock, fire and theft, liability on two trucks, compensation insurance on two men, helpers, and truckman. Freight and express is only a small expense, as supply houses deliver most of the material by truck. Service covers making good where dissatisfaction may develop for any reason, such as through defective material having to be replaced, faucets leaking, and like complaints.

Overhead expense as shown is 25 per cent of the total. Profits amount to 5 per cent. Material and labor are placed in the budget only for the purpose of showing what the other 70 per cent of the gross income covers. Where overhead expense and profit constitute 30 per cent of the gross business, labor and material make up the other 70 per cent, but what part of that 70 per cent will be for material and what part for labor depends so much on the cost of the material—not only on the fluctuations in price, but the kind of material and fixtures used—that it is unsafe as a guide for checking labor. In an average one-family residence the cost of material constituted 47 per cent of the contract price, and cost of labor 23 per cent. Much more expensive fixtures might have been used and installed at only a slightly increased cost for labor. In that case labor and material would still make up 70 per cent of the bid, but if material took up 55 per cent of the 70 per cent, labor would constitute only 15 per cent. Any attempt, therefore, to budget labor would be misleading. A better and safer method of checking it should be found, and a good bookkeeping system will provide it.

While the set-up shown here will be helpful in that it gives you a definite idea of what a budget is, serves as an actual example of what one plumber uses, and illustrates

A superficial glance at the budget shown herewith might cause one to exclaim, "How could a man exist on the profit of 5 per cent which is shown?" This amounts to only $1,250 per year. However, a more careful study of the figures reveals that, in addition, the proprietor draws $50 a week regularly. The owner of a business who takes an active part in it, performing the duties (usually) of a manager or supervisor, is entitled to pay for his services in that capacity. That portion of his efforts which are not productive are chargeable to overhead expense. Two-thirds of the amount this proprietor draws is charged to overhead expense, because it is estimated two-thirds of his time will be taken up in managing the business, and the other one-third of his time spent with the tools. The money he earns in this way is included in "Labor," the same as the wages of the other mechanics. The proprietor also draws 6 per cent interest on the money invested in the business if the investment is free and clear. Besides, he always has open to him the opportunity of reducing his overhead expense if he can, and any reduction in these, increases his profits.

The budget will help you to prepare in advance out of present revenue for those periods that make the heaviest demands on income, and avoid imposing a burden upon future earnings. It provides the incentive and the mechanism for effecting economy, for preventing overexpenditures, and for fixing responsibility. Also, aside from its practical use, it is valuable in that it develops a habit of foresight and anticipation. By all means, have a budget!

Kitchens!

# Drive Starts for Kitchen Market

A PLACE in the front rank of American business is being offered the once humble kitchen. The merchandising and designing talent which has been trained in other fields and in other lines is now being directed toward the housewife's workshop. And the same talent within our own industry is rising to meet the challenge.

The significance of this new interest in making over our kitchens should not escape the dealer. It is the outward evidence of the prominent place which the home market has assumed in the minds of American business men.

In studying the possibility for business development in the next few years, the leaders of many lines of business have concluded that this home market offers the greatest possible avenue for development. As a result we are being treated to the unusual sight of companies which have never been active in the residence field, offering or preparing to offer products for the home, sometimes of new metals, usually of new design.

It is an invasion by a group of well established manufacturers, many of them trained in merchandising and all of them anxious to tap the profits which they anticipate will flow from the pocketbooks of the American home owner.

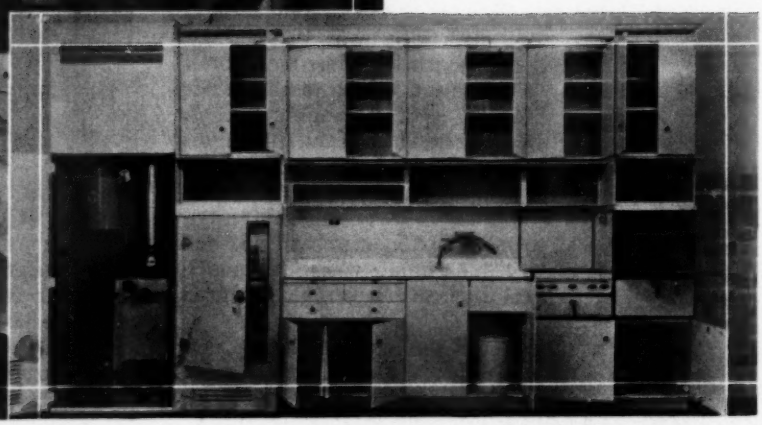
Designers have developed and are developing new products to appeal to the housewife. Compact units, convenient equipment, the straight line of progress made familiar in assembling plants to reduce unnecessary steps, all of these indicate the channels through which this attractive big market is being entered.

**The American kitchen is being recognized as a great market**

The dealer in domestic appliances is in a preferred position in realizing on this new and tremendous interest in the home market. The products for the kitchen are usually of a nature requiring expert installation as well as competent salesmanship. The dealer's guarantee of service, his promise that he will be responsible for

the successful operation of the kitchen equipment, is the influencing factor in the sale.

With both the manufacturers with whom he has worked and the newer ones entering the field, uniting to promote an interest in better kitchen equipment, the dealer will find a constantly expanding market in which to find customers.



**The kitchen is becoming a competitive battle field. Both the electrical and gas industries have entered the contest. The dealer in domestic appliances will have behind him from now on an accumulating pressure to put newer equipment into the American kitchen**

# Modern Plumbing Depends on Venting

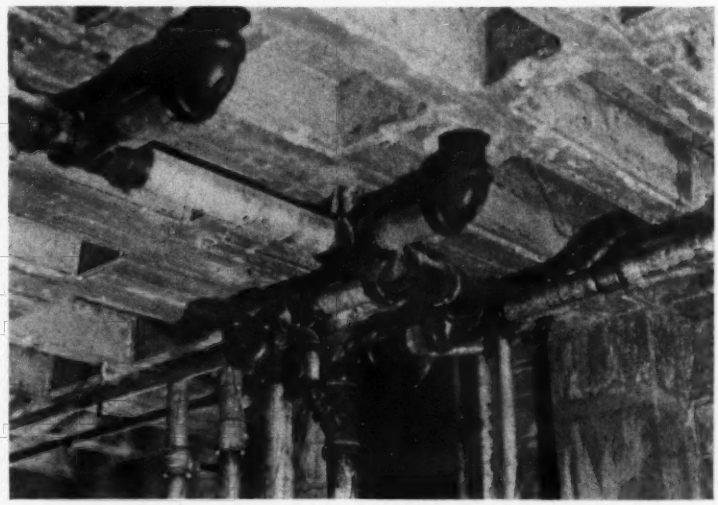


**Fig. 1—Here is some of the plumbing installed in the recently completed nurses' home in Chicago. Adequate venting was installed**

*This forceful article reassures us as to the importance of venting in modern plumbing systems*

By R. M. Starbuck

"WHEN the need and the importance of the vent system are lost sight of, then the door is thrown wide open to general demoralization of modern plumbing standards." These words were recently voiced by one of the most prominent present day leaders in the plumbing industry.

The occasion of this statement was an important hearing which actually involved the overthrow of an excellent plumbing code, in favor of some sort of mongrel system in which venting was to take a back seat. The importance of the city whose plumbing code was at stake, emphasized the importance of the statement.

We had never heard such an out-and-out statement on the subject as this. It certainly made us do some thinking. And we came to the conclusion that it was not far from the truth.

The more we have thought this thing over, the more we have felt that right on this point more than any other point in plumbing practice, hangs not only the effectiveness and the efficiency of the modern plumbing system, but much more than that. There is a psychological point involved, perhaps several, and we want to bring the point out, if we can.

The writer has in his possession a collection of nearly five hundred plumbing codes, covering every corner of this country and Canada, and perhaps as much as any other individual connected with the plumbing industry, has gained an intimate knowledge of their contents and of their worth. This knowledge has been gained through the labor of tabulating many lines of information contained in these codes, and through continued reference to them over a period of many years.

Some plumbing codes are excellent, and they grade from that rating down to those that are nothing less than ridiculous.

It is said that you can tell what a man's character is if you know what he eats. We think you can tell what a city is if you know what kind of a plumbing code it has. Without an instant's hesitation, we would say, "Give us the city that calls for venting."

### FEW CITIES OVERDO VENTING

A few cities here and there overdo the matter of venting—they call for it where it is obviously unnecessary. We are not interested in that sort of thing, but when a knowledge of natural law—a knowledge of cause and effect, show that venting is necessary as a matter of protection, then we vote for venting every time.

Granting that venting is a necessary protective measure, what are some of the reasons its use is so often objected to?

As we see it, there are six principal obstructive influences always at work against the use of an adequate system of venting—and by this we really mean at work against the proper protection of the house drainage system. No doubt there are other influences, but in our thought they include—(1) Ignorance on the part of the plumbing trade; (2) ignorance on the part of the public;

(Continued on Page 33)

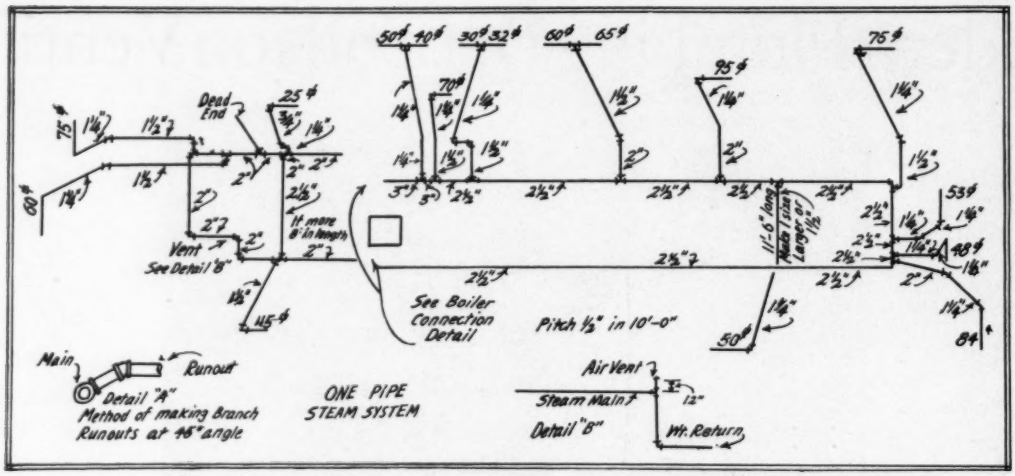



**Fig. 1—Here are the pipe sizes which are recommended as being economically correct according to the several tables given in this article. Details of a steam supply runout and provisions for venting the main are shown**

# What Size Piping For One Pipe Steam System?

By Wm. W. Stevens

***"We must have information by Dec. 16, or else our customer will lose all his renters." This expresses the urgency of the request covered in this article.***

IT is one thing to be given a number of charts and tables for estimating pipe sizes. It is quite another thing to use these in designing an economically and scientifically correct system. A reader in Wisconsin brought this to mind in a forceful manner, just recently, with the following letter:

"The writer would like to know if you would check over the pipe sizes on blue prints we are mailing you.

"We would like to have this by Dec. 16 or else our party will lose all his renters.

"You will note we have one set of blue prints showing proposed changes to piping branches and risers, Fig. 3.

"This is a one pipe steam heating system, installed by our competitor, in a two-story building.

"The boiler is of ample size, but we claim he has his piping wrong as they can not circulate steam through the system unless they have about 4 to 6 lb. steam. We have checked the radiation and have found some radiators are too small.

"All we are interested in now is that you check the pipe sizes and let us know if they are correct.

"Please give this your immediate attention, if you can."

Most of the piping specified in the correspondent's layout, Fig. 3, is oversize. The only instance of it being undersize is in the case of the supply main for the north circuit where it runs back to the boiler. A 2½ in. main is recommended because of the general rule that when the main at the boiler is over 2½ in. in size, it is not

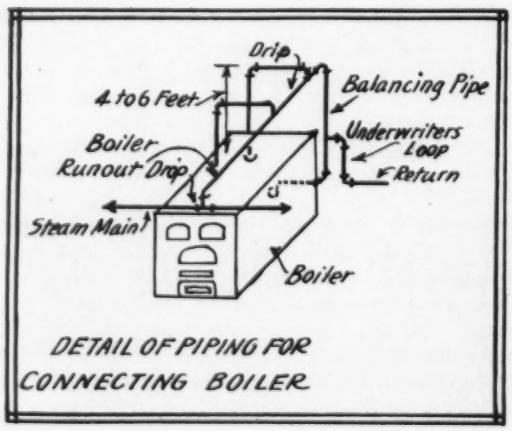



**Fig. 2—The illustration at the left shows piping connections for a boiler, using the one pipe steam system. Note that piping for the Hartford loop also is shown**

recommended to make the small end less than 2½ in. As for the supply main in the south circuit, the rule applied here is that with the main starting off at the boiler 2½ in. or over, the main should not be reduced to less than 2 in. at the far end.

Another point which should be stressed is that when horizontal runouts in one pipe gravity steam systems are over 8 ft. long, the runout is increased one pipe size. It would seem that there are only two runouts in Fig. 3 that are over 8 ft. in length and, accordingly, we have indicated, Fig. 1, that they should be one pipe size larger than otherwise. The pitch of the piping, of course, should be ½ in. in 10 ft. and all of it should drain so that the condensate will run back to the boiler through

**Table 1**
**Capacities of One-Pipe Steam Risers—Upfeed**

| Size of Riser Nom. Pipe Diam., In. | Equivalent Square Feet of Steam Radiation at 240 Btu |
|---|---|
| ¾ | 25 |
| 1 | 45 |
| 1¼ | 98 |
| 1½ | 152 |
| 2 | 288 |
| 2½ | 464 |
| 3 | 800 |
| 4 | 1520 |

Note—These tables are from American Society of Heating and Ventilating Engineers' Guide—1931.

the return connection. The general rule is that if the riser runout and main are arranged so that a cup of water emptied into the radiator valve at any and all radiators will find its way back to the point where the return connects to the boiler, it is pretty good evidence that the system is properly pitched. On the other hand, if the water settles into any low point from which it cannot drain out by gravity, there is bound to be trouble unless it be in the wet return, which is assumed to be full of water at all times.

Note the approved suggestions in Fig. 2, for the ar-

**Table 2**
**Capacity of Horizontal Runouts in One-Pipe Gravity Steam System**

| Size of Runout Nom. Pipe Diam., In. | Equivalent Square Feet of Steam Radiation at 240 Btu |
|---|---|
| 1 | 20 |
| 1¼ | 55 |
| 1½ | 81 |
| 2 | 165 |
| 2½ | 260 |
| 3 | 475 |
| 4 | 1110 |

Note—On runouts over 8 ft. long increase pipe one size. Pitch of pipe not less than 1 in. in 10 ft.

rangement of the air vent. The plan, Fig. 3, does not show exactly how the correspondent's vents are installed. It is good practice to raise the air valve on a ¾-in. pipe about 12 in. above the main to keep it out of the way of the water and to prevent the steam in the main from shutting the valve prematurely. The fact that it is neces-

**Table 3**
**Capacity of Steam Mains for One-Pipe Steam System**

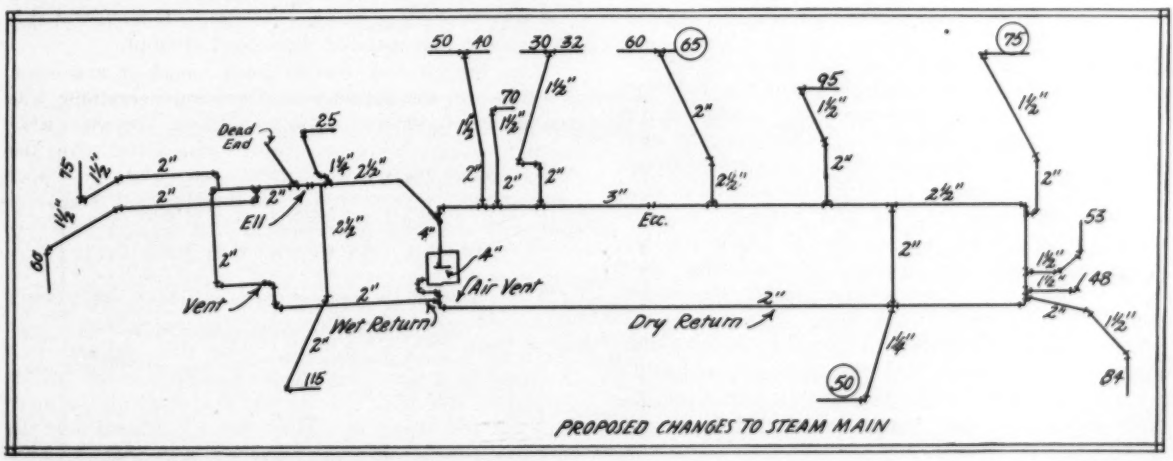
| Size of Main Nom. Pipe Diam. In. | Equivalent Square Feet of Steam Radiation at 240 Btu |
|---|---|
| *1 | 56 |
| *1¼ | 122 |
| *1½ | 190 |
| 2 | 386 |
| 2½ | 635 |
| 3 | 1163 |
| 4 | 2457 |

*It is not recommended to make the end of the steam main at the boiler less than 2 in., and, when the main at the boiler end is over 2½ in. in size, it is not recommended to make the small end less than 2½ in.
Based on 1 oz. loss per 100 ft. of equivalent length of run.

sary to have a pressure of from 4 to 6 lb. of steam in the system in order to heat, indicates to some extent that the water and air is not being drained and forced out of the radiators and piping as it should be.

This also indicates that you may be troubled with a dirty boiler with a film of oil on the surface of the water. The basis for the pipe sizes shown in Fig. 1 is found in tables 1, 2, and 3.

**Fig. 3—Below is the plan as submitted by our reader. The amounts of radiation in circles represents the enlarged radiators he intends to install. His pipe sizes also are indicated here**



**The window display which proved such a great attraction in Wm. Delhagen's Sales Campaign on Gas Ranges**

# How Wm. Delhagen Planned His Campaign on Gas Ranges

## *And how it was hooked up with a Cooking School Course*

EARLY in December a daily newspaper in Paterson, N. J., gave a four-day cooking school course in the Central High School in that city. This gave the merchandising plumber, Wm. Delhagen of Paterson, an opportunity to accelerate his drive for the sale of modern gas ranges, by hooking up his sales campaign with the publicity devoted to the cooking school. To do this Mr. Delhagen inserted two display advertisements, 6x10 inches in size, in the local newspaper, calling attention to his sales drive on modern gas ranges.

Another prominent feature of his gas range sales campaign was the use which Mr. Delhagen made of his display window. This involved quite a bit of preparation which we will let Mr. Delhagen explain in his own words:

"Endeavoring to be a little different from our competitor and also to put some life or sentiment in our window, we decided to put in an old-fashioned display. Of course that doesn't mean we went immediately about it, but instead we kept our eyes open for old fashioned things that would be needed later. While delivering ranges, we were on the lookout in cellars for odds and ends, so when the time came to install the window we knew just where to get the necessary articles. We asked twenty-five or more friends and customers for an old fashioned wooden wash tub before we were successful. The old stove we had used before to show the difference between new and old style ranges. To attract attention at that time we used a sign entitled, "When You and I Were Young, Maggie." It was the results of this experiment that inspired the second attempt.

"Our biggest task was to get a model of a woman. We tried all the department stores but everything was too modern so we decided to make one. The walls were made of beaver board and painted with water color, the lower section being a dark dreary blue while the upper section was a lighter shade, and the base and trim were gray.

### HOW THE GAS RANGE WAS DISPLAYED

The frame of the new range was gold to represent a picture frame. The floor covering was a very badly worn piece of blue oil cloth. With this cold and drab background it showed off to good advantage the articles displayed, and made the new modern range all the more cheerful and attractive. Much fun was caused over the red flannels and old style ladies' drawers with embroid-

ery that was hung from the clothes rack. The worn wood box, soap, mouse trap, spectacle case, "Home Sweet Home" motto, ashes on stove, old flat iron and other details gave it that homey interest.

"To get the most out of the display we decided to run a contest for the best title and to award $10 for the best one suggested. We received over 700 titles. Because of the enthusiasm and the difficulty of selecting the best one, we decided to give five other prizes. We advertised this contest in the daily newspapers and later the prize winners and the winning title which was "Dreaming of Her New Bengal Range." We considered this title the most appropriate as the old lady holds a circular of the range exhibited in the gold frame in the background which was our idea of displaying a mirage.

**THE DISPLAY HAD GREAT DRAWING POWER**

"We have had many displays which were more colorful and elaborate, displaying the latest style merchandise but none that had the same drawing power to stop the passer-by and have him linger. Never was the sidewalk vacant, and every one who stopped would attract another by his laughter and remarks. The display left a pleasing impression on their mind and they would continue on their way with the set purpose in mind to tell some one else about it. Many people came in to compliment us and to say they had heard so much talk about it that they came several blocks out of their way just to see it. We had representatives from the Public Service Gas and Electric Co., Chamber of Commerce and Department Stores call and congratulate us upon this display.

"Our display usually remains for a month. We are preparing to convert the kitchen into a modern one and entitle it "Her Dream Realized," thus showing the contrast and linking the two-window displays.

"We were interested in the cooking school sponsored by one of our local newspapers, as our display ads show. These demonstrations lasted four days and were held in the auditorium of one of our high schools. More than 2,500 women attended each session. In connection with this cooking school we advertised and pushed the sale of the modern gas range, which was used in the school. In this way many women were induced to come to our store to inspect the range, and they became acquainted not only with the range but also with our store. Judging from past experience we know that we are thereby gaining not only prospects but also worthwhile customers."

# Modern Venting—

(Continued from Page 29)

(3) lack of aggressiveness and progressiveness on the part of city plumbing departments; (4) direct and active opposition of real estate interests; (5) trade competition and (6) speculative building. Which one of these influences is strongest we would not want to say, probably one influence is strongest in one section of the country, and another in some other section.

We are quite sure that in many instances venting is not supported by the plumbing trade as it should be. This is a wrong attitude we are sure. Scientific experiment demonstrates the necessity of venting, but does not support its unnecessary use.

Custom and ignorance account for some of the apathy on the subject found in the plumbing trade. We suppose it is a natural consequence that if one's father and grandfather installed plumbing without vents, that the unvented system is good enough for succeeding generations. This effect of custom or tradition betokens ignorance, however, for a sufficient knowledge it seems, would cause one to credit venting with performing useful and necessary service.

If the public were as well informed concerning the necessity of safe plumbing as they are about other health measures, undoubtedly it would be far easier to establish correct plumbing practice in many localities now destitute. The plumbing department, including the plumbing inspector himself is often too content to stand pat on outgrown plumbing regulations. We believe a firmer stand for correct practice would be of untold benefit. In individual instances it has been demonstrated time and again that the earnest work of these officials has in the end brought desired results.

When it comes to the obstructive influence of real estate interests, it is difficult to point to a remedy except in the education of the trade and the public to the benefits of safe plumbing.

Cities differ greatly in the seriousness of this influence. We know of cities that appear to be completely under this influence and here we are apt to find plumbing at its lowest ebb. On the other hand, there are very many localities where this influence seems to be negligible. Nevertheless, it will generally have to be taken into account and met.

Trade competition and speculative building are strong influences forcing the members of the plumbing trade to outbid each other and in the process to cut down on requirements. This influence is seen strongest in country districts and in those cities and towns having ineffective plumbing laws and administration. The remedy it would seem is in good plumbing laws honestly and effectively enforced by the plumbing department.

In summing up the situation, it is our own opinion that the greatest deterrent influence against safe plumbing comes from the trade itself, including city plumbing departments.

You Can See and Try Out for Yourself
at
Wm. DELHAGEN'S
the many exclusive features of the
MOORE'S VANITY GAS RANGE
(Being demonstrated at the Paterson Call's Cooking school)
A Moore's Vanity GAS RANGE
like the one shown below will be given away FREE at the store of the Paterson Call's cooking school. Be sure to register your name, get your coupon and deposit it at our store. Why shouldn't you be the one to get this splendid prize.
We congratulate the Paterson Call on its enterprise in conducting a modern cooking school and its good fortune in securing Mrs. Nancy Rowe, famous cooking expert, as demonstrator. We are gratified—but not surprised—that the gas range selected for this series of demonstrations is a Moore's Vanity. The most modern type of cooking re-
Wm. DELHAGEN
182 ELLISON ST. PATERSON, N. J.
Plumbing Phone SH. 2-8792 Heating

**Part of one of the display ads. used by Wm. Delhagen in his gas range sales campaign. The complete ad was 6 x 10 inches**

# Questions AND Answers

1. *Reader comments on question and answer published in an earlier issue. He gives his experiences and suggests the use of an elevated loop for increased circulation.*

2. *Big Navy contract calls for the tapping of a number of 150,000 bbl capacity oil storage tanks, while they are filled with oil. Suggestions from several sources have been used in framing the reply. The reader tells how the job turned out.*

3. *"I installed the two hot water storage tanks according to your plan and same works perfectly," says P. V. J. of N. Y. City in commenting on a problem which he submitted and which is answered here.*

## 1—

To the Editor:

In a recent issue of Domestic Engineering under Questions and Answers I note with interest an article concerning a small system of hot water heating where the writer has placed a radiator on the same floor level as the heater and the arrangement fails to heat the radiator correctly.

Having had a similar experience of my own I am pleased to pass the idea along that it may help some other fellow in a similar predicament.

The accompanying Fig. 1 shows that part of the heating system that covers the case but does not show the entire system. In my case I installed one radiator in a room next to the room containing the heater. I piped

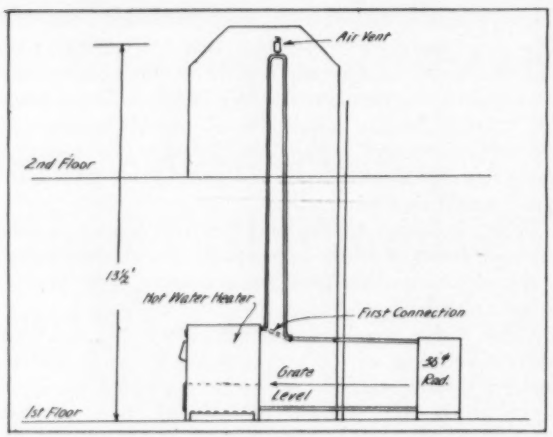



**Fig. 1**

directly from one of the rear connections in the heater rather than from a branch in the main line. Therefore I am not showing the main line or any of the six radiators connected to it.

The return also is connected independently in a front tapping that is on some models of this type of heater. It runs along the rear side of the heater as shown by dotted lines.

When this radiator was first installed I ran a flow pipe horizontally from the heater to the radiator as shown by the dotted lines. I soon found that the radiator "sympathized" with the heater and with a mild fire when only the upper part of the heater was warm the radiator likewise was warm at the top and cold the balance of the way down. With extreme hard firing when the heater showed a hot return this radiator also got hot. However, this happened seldom because the system was made of ample proportions so that it is not necessary to fire hard.

As an experiment I installed an elevated loop with an air chamber and air valve at the top as shown and produced the desired results. Now the system gives all the heat that is required.

Michigan. W. E. H.

## 2—

To the Editor:

Please advise how you would recommend making a 14-in. connection into an oil storage tank, 150,000 bbl. capacity, when filled with oil, without losing any of the oil. The connection would be made on the side at, or near the bottom.

It has been suggested that a box-shaped cofferdam, shaped to fit the wall of the tank, and of size no more than sufficient to cover the inner surface of the tank where the connection is to be made, be used. By lowering this cofferdam through the oil and holding it against the inner surface of the tank, and by then forming a hole through the tank wall, the cofferdam will be held against the tank wall sufficiently tightly to prevent further leakage while the connection is being made, if the bearing edges of the cofferdam are made flexible by rubber or otherwise, to seal the joint.

B. E. H.

To the Reader:

We have taken up the question of tapping a filled oil tank with several practical authorities in Chicago. As might be expected opinions vary as to the practicability of doing the work you propose when the tank is full. We will give you the results of our inquiries for whatever value they may be to you.

First, suggestions come from an engineer and maintenance man, W. H. Wilson, who is connected with the Pullman Car and Mfg. Corp., Pullman, Ill. These comments are very complete in discussing the method proposed.

# FEATURES THAT SELL

• dollar value
• performance
• excellence of design
• quality materials
• high grade workmanship

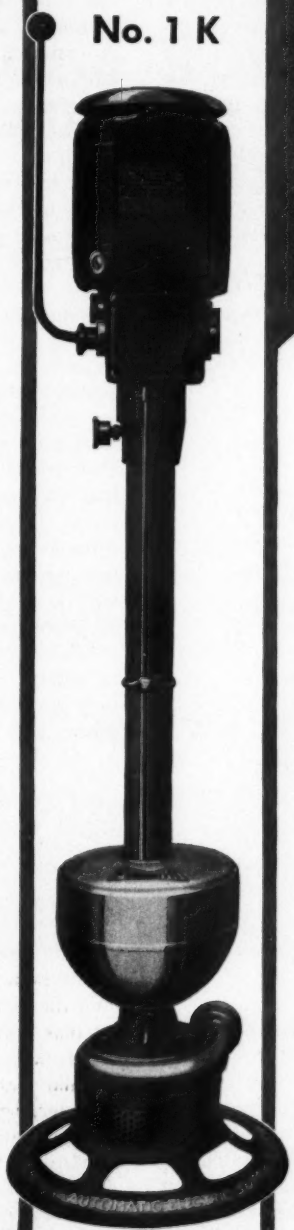
**MODEL 33**

RETAIL PRICE

$39.50

⅙ h.p. motor
Maximum capacity
1400 gal. per hour.

**No. 1 K**



RETAIL PRICE

$65.00

¼ h.p. repulsion-induction motor.
Maximum capacity
3600 gal. per hour.

PENBERTHY PRODUCTS

Builders of Penberthy Automatic Cellar Drainers

WATER OPERATED

PENBERTHY Automatic Electric Sump Pumps and Automatic Cellar Drainers are made of copper and bronze throughout—eliminating corrosion. Their exceptionally rugged construction assures long life and satisfactory operation.

The electric pumps have a circuit breaker that protects the motor against damage from overloading or improper voltage. Model 33 Pump is made in one size only for sump depths from 10″ to 24″; current 105-120 volts, 60 cycles; 220 volts, 60 cycles optional. Model K Pumps, in addition to their larger capacity, are made in five sizes for sump depths to 8½ feet, and are available in any standard electrical specifications.

Penberthy Automatic Cellar Drainers are also available in five sizes. Like Penberthy Automatic Electric Sump Pumps, they are carried in stock by jobbers everywhere.

**PENBERTHY INJECTOR COMPANY**

*Manufacturers of Quality Products Since 1886*

DETROIT, MICHIGAN WINDSOR, ONTARIO

COPPER AND BRONZE THROUGHOUT

# PENBERTHY SUMP PUMPS

The second source of information with which we got in touch is the Chicago Bridge and Iron Works. Their Mr. Smith took the matter up with their erection department and their decision was that if they were confronted with the same task, they would refuse to take the risk of cutting the holes you specify until such time as the tanks are empty. His opinion is that there is too much danger of losing the contents of the tank to make the job attractive. It was pointed out that if a 14-in. hole should be cut in a plate, the plate would be weakened to such an extent that failure most likely would result. To guard against this, good practice would demand the re-enforcing of the plate probably by means of welding another plate to the one through which the connection is to be made. When asked if it was practicable to weld to the outside of a tank filled with oil, Mr. Smith stated that their company has done this al-

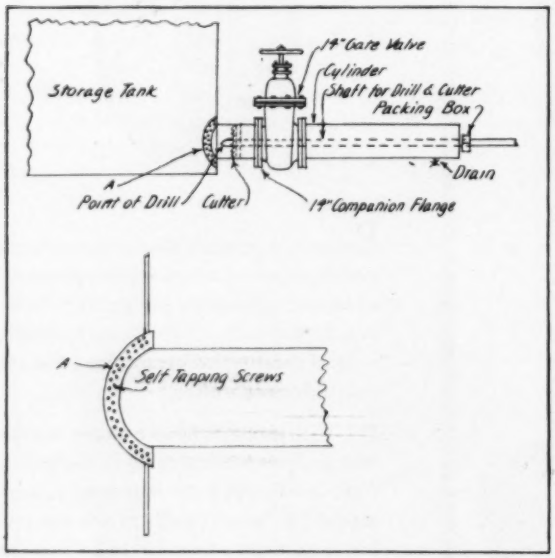



**Fig. 2**

though it requires considerable care. Another point Mr. Smith brought up was that if you should follow the following suggestions and make the connections, provisions should be made to prevent the possibility of fire while drilling. This might be done by filling the chamber in back of the drill with either a non-flammable gas or with the oil itself to prevent any spark from being generated. The objection to your suggestion of building a cofferdam on the inside of the tank seems to be the difficulty you would encounter in making a tight seal and in holding the cofferdam in place. As far as we can determine, the cofferdam would require rather elaborate bracing. Of course, a pump could be installed to remove a moderate amount of oil which might leak into the cofferdam. One of the most logical solutions to your problem seems to be that of attaching the necessary connections to a re-enforced plate. Then place this plate up against the side of the tank in position and weld it in place so as to make a tight seal. The self tapping screw bolts could be used to provide additional strength in holding the re-enforced plate to the side of the tank.

"The suggestion of using a cofferdam on the inside of the storage tank is probably the best solution for this work, provided the cofferdam could be held in place and tight enough to prevent oil leakage all the time the work was going on and with no liability of its slipping out of position. This method would have the advantage of providing a means for drilling holes and bolting the saddle flanged connection securely in place without being bothered with the oil.

"The following is suggested for consideration and a sketch describing same is attached:

"A saddle flange, A, is provided which is fitted to the shape of the tank on one end, the other end being provided with a companion flange to which a gate valve can be attached (a valve with welding nipple ends may be used.) The saddle flange is attached to the tank with self tapping cap screw bolts. I have never seen the self tapping screws made in sizes large enough that would be suitable for this work, but see no reason why the manufacturers could not furnish them in a suitable size, say 5/8-in. diameter, made of a good grade of hardened steel, with a drill point and die cutting starting threads. The screws should have a square or hexagonal head so that they could be drawn up tightly to make a leakproof joint. I would space the screws closely and have two or three rows, staggered spaced, in order to get an even bearing on the gasket. The gasket should be coated with a good grade of shellac that is recommended for oil proof joints in pipe work.

"Before starting the self tapping screws a hole could be drilled into the wall of the tank, a small hole and only partly through the tank wall to assist in starting the screw.

### HOW THE DRILL IS USED

"This flanged connection could be put on the tank from the outside without any danger of losing any oil. After this flanged connection is securely in place, bolt on the gate valve. Open the gate valve and bolt a cylinder to the gate valve. The cylinder contains a drill rod and cutter.

"The drill and cutter is pushed through the gate valve to the tank wall, drill rod shaft turned so that the drill cuts the centering hole, the cutter follows and cuts the circular opening in the wall of the tank. When the drill rod is withdrawn, the pressure of the oil will push the circular cutout piece through the gate valve and into the cylinder, beyond the gate valve. Close the gate valve, open a drain valve on the cylinder, remove the accumulated oil in the cylinder, take off the cylinder, cutter and drill and the connection is complete.

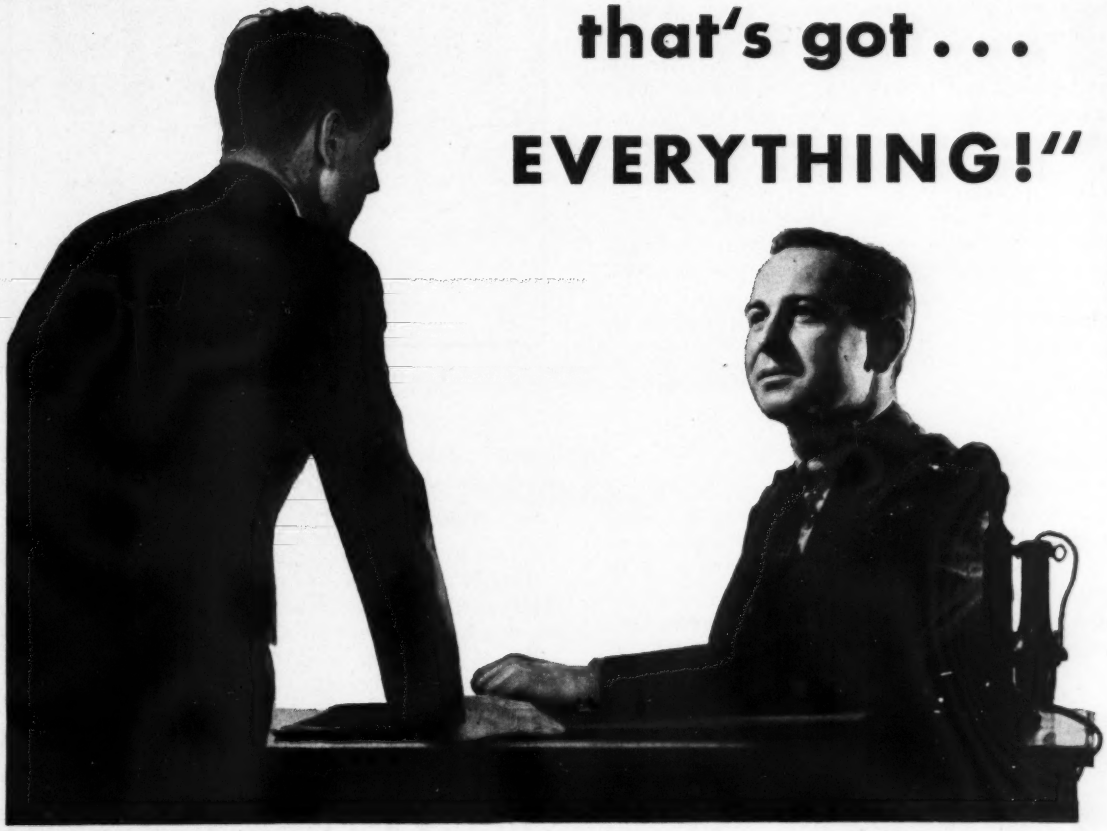
"I believe this would be a good way to do the work and it could be done without any risk of losing a tank of oil.

"The success of the plan depends on getting the proper kind of self tapping screws, applying them so that a good oil tight joint is made to the wall of the tank, which means a good even bearing all around the saddle flange and self tapping screw bolts tightened evenly and securely.

"The thickness of the wall of the oil storage tank is not given, but I presume it would be thick enough to be suitable for a gasket joint, provided the bolts were spaced closely.

"The kind of oil is not given, but it is assumed that from a safety standpoint, welding would not be considered."

# "Here's one Roof Flange that's got . . . EVERYTHING!"



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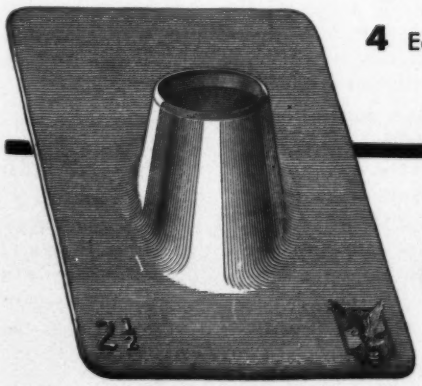
EAGLE-PICHER
LEAD
COMPANY
CHICAGO • JOPLIN • CINCINNATI

**1** It is all lead—one piece—strongest construction.

**2** No blowholes or laminations—made under 100-lb. pressure.

**3** Easy to adjust—pliable and ductile—feather edge on boot.

**4** Easy to handle—rounded corners.



use EAGLE
super FLANGE

**HOW THE JOB TURNED OUT**

To The Editor:

We deferred writing you about the tapping of the oil tanks, until the outcome of the bidding was determined. However, we were not the lowest, our figure having been third of eleven received.

Frankly, we had decided to use a tapping machine, as suggested by you. On the one tank where the original requirement was to tap into the wall of the tank through a hat flange welded to the outside, we had definitely decided not to take that risk, and had stated in our proposal that we were planning to tap into the blank flange on an existing manhead, on the opposite side of the tank, which involved about 150 ft. of additional 14-in. piping.

Your assistance was greatly appreciated, and if we had done the work, we would have taken pleasure in writing a detailed report for whatever uses you could have had for it.

Incidentally the job was in connection with a big Navy contract.

B. E. H.

## 3—

To the Editor:

Will you kindly answer the following:

I want to install two five hundred gallon hot water storage tanks in place of the present 1,000-gallon tank. These are to set horizontally and the water is to be heated by a coal heater of ample size.

I believe if the connections are not correct, one tank will contain very hot water and the other will not.

A sketch of present hook-up is marked Fig. 3.

Each tank should be supplied by a separate tapping from the heater. This, however, uses quite a lot of pipe, two lines. Do you know of a better hook-up?

N. Y. City. P. V. J.

To the Reader:

The sketch marked Fig. 3 shows connections for more

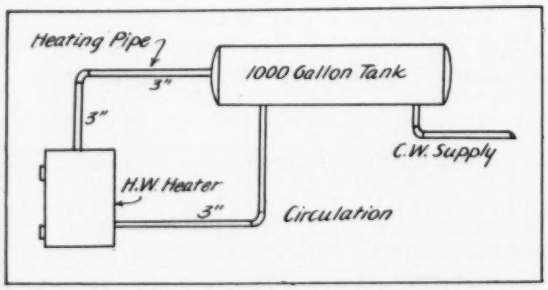



**Fig. 3**

than one water storage tank when hooked together.

You state that you want to connect two 500-gallon tanks. The same principle applies in connecting the two as in connecting the three shown so all that is necessary for you to do in applying this sketch to your problem is to leave off the connections for the third tank.

Your suggestion is for two supply lines coming out of the water heating boiler. These should be joined into a common header and then a single line carried over from this to the line in our sketch marked "Flow from

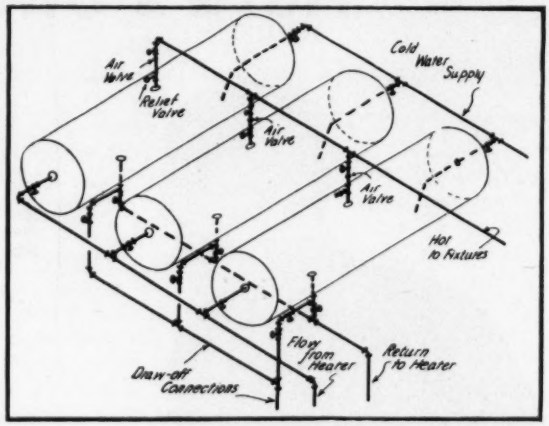



**Fig. 4**

heater." The arrangement we have shown is designed to heat the water in both tanks at the same time.

**THE READER TELLS WHAT WAS DONE**

To The Editor:

This is in reference to the problem I submitted recently and which was answered by you. I have installed the two hot water storage tanks according to your plan (Fig. 4) and same works perfectly.

N. Y. City. P. V. J.

# Questions For READERS

The following question was asked in the November issue, and the following answer is by a reader:

*What causes circulation in a gravity hot water heating system?*

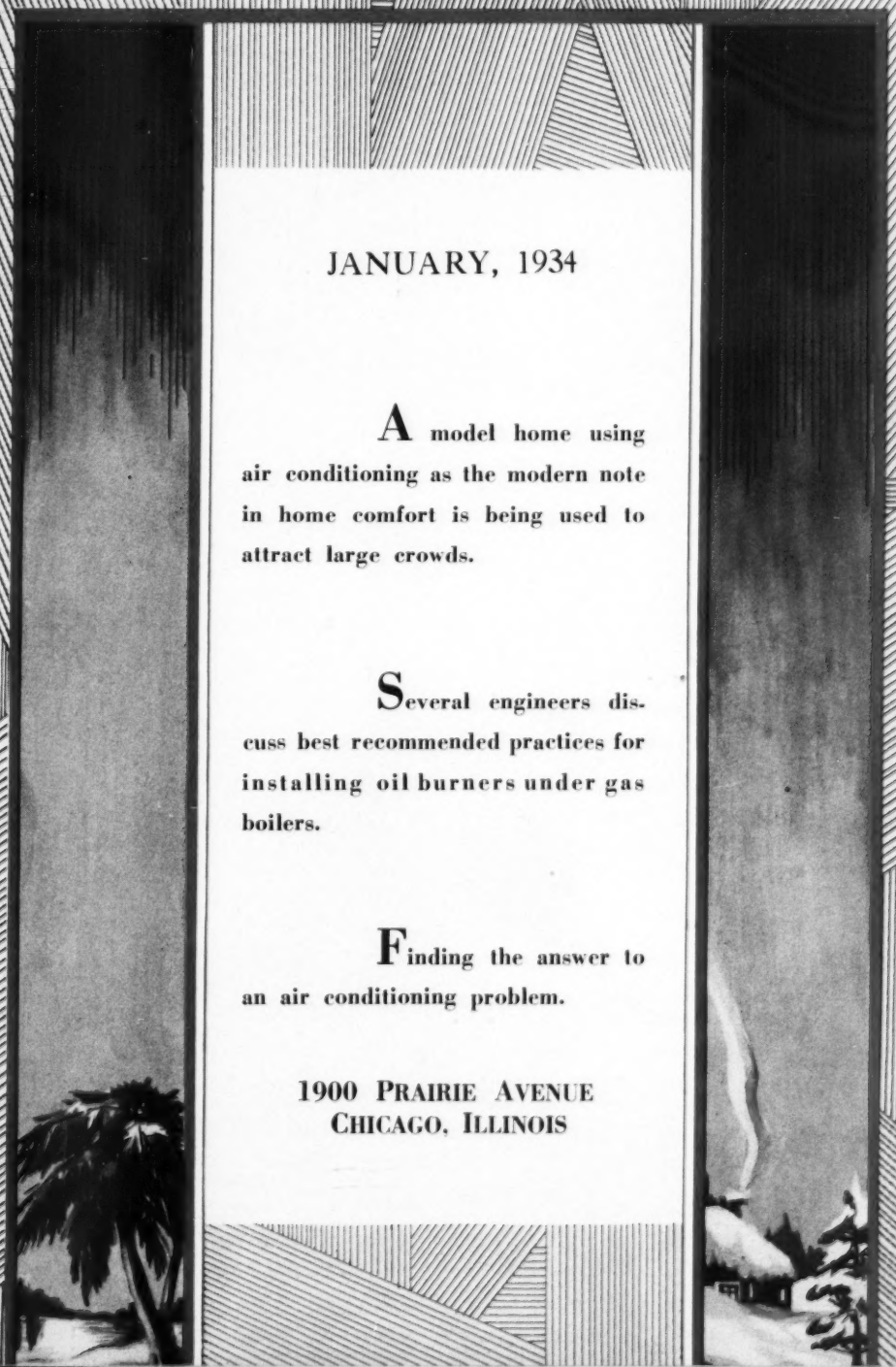
The writer has found in his experience that there is a considerable amount of mystery surrounding the circulation of water in a gravity hot water heating system. There seems to be a general idea that hot water rises and circulation is attributed to this supposed characteristic. Probably this is the reason for so many wrong lay-outs in circulation systems.

Hot water does not rise because there is some mysterious force catching hold of it and pulling it up. Hot water rises because it is pushed up. This pushing action comes as a result of cold water falling. The pull of gravity downward on heavier cold water at the top of a heating system causes the warm lighter hot water to be pushed up to the top. A close comparison here is in the operation of a bucket conveyor such as is used in coal yards in stacking piles of coal. Suppose that the

(Continued on Page 96)

DOMESTIC ENGINEERING

# Automatic Heat *and* Air Conditioning Section



JANUARY, 1934

**A model home using air conditioning as the modern note in home comfort is being used to attract large crowds.**

**Several engineers discuss best recommended practices for installing oil burners under gas boilers.**

**Finding the answer to an air conditioning problem.**

1900 PRAIRIE AVENUE
CHICAGO, ILLINOIS

# THEIR STEAM SALES FELL

*so*

*this Power Company*

*Installed*

the

# MODUTROL SYSTEM

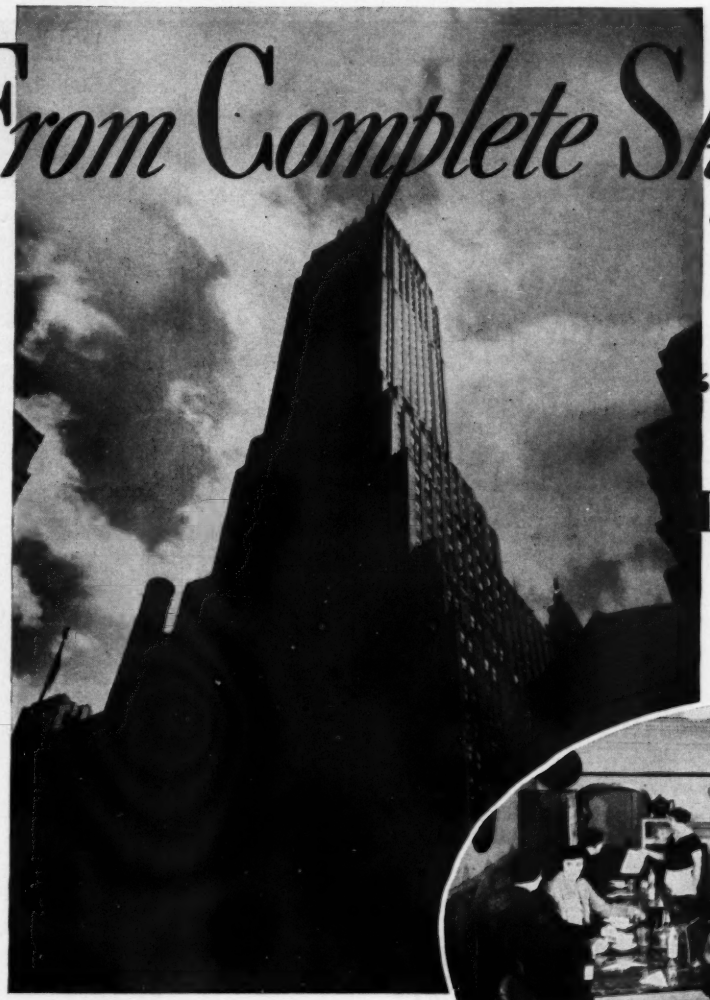
WHEN their sales of central station steam to the Glenwood (Minnesota) school showed a 32% decrease over a 3 months period, with outside temperature averaging 10% colder, officials of the Northern States Power Company investigated. They found this fuel saving due to installation of the Modutrol System, which likewise provided greatly increased comfort and healthful temperature . . . So amazing were the results from the Modutrol System that it was selected for the general offices of the Northern States Power Company.

There is a Modutrol System for your building, or the one you contemplate. Minneapolis-Honeywell Regulator Company, 2801 Fourth Avenue South, Minneapolis, Minn. Branch or distributing offices in all principal cities.

**MINNEAPOLIS HONEYWELL**

*Control Systems*

# From Complete Skyscraper To "CUBBYHOLE" LUNCH ROOM



## "MADE-TO-ORDER" CLIMATE.... *for any kind and size of space*

A great, comprehensive line of equipment... spanning every air conditioning need... and made available at one convenient, responsible source... is offered by Sturtevant! It ranges from small household humidifiers to central systems for complete comfort-air-conditioning of entire skyscrapers.

This Sturtevant equipment is worthy of your full confidence. In it you get the sound, seasoned engineering of a pioneer in air conditioning. An impressive idea of the extraordinary experience behind it, may be gained from the fact that both America's *first* and America's *largest* complete comfort-air-conditioning jobs are Sturtevants. The former was installed over 20 years ago.

You are cordially invited to make use of Sturtevant's vast fund of air conditioning experience. Well-posted Sturtevant representatives at strategically located offices would be glad to confer with you. Write us, requesting catalogs or a call from our nearest representative.

B. F. STURTEVANT CO.
*Specialists in complete air conditioning with refrigeration since 1912*

Main Offices: Hyde Park, Boston, Mass.; Chicago, Ill., 400 N. Michigan Ave.; San Francisco, Cal., 681 Market St. Branch Offices in Other Cities

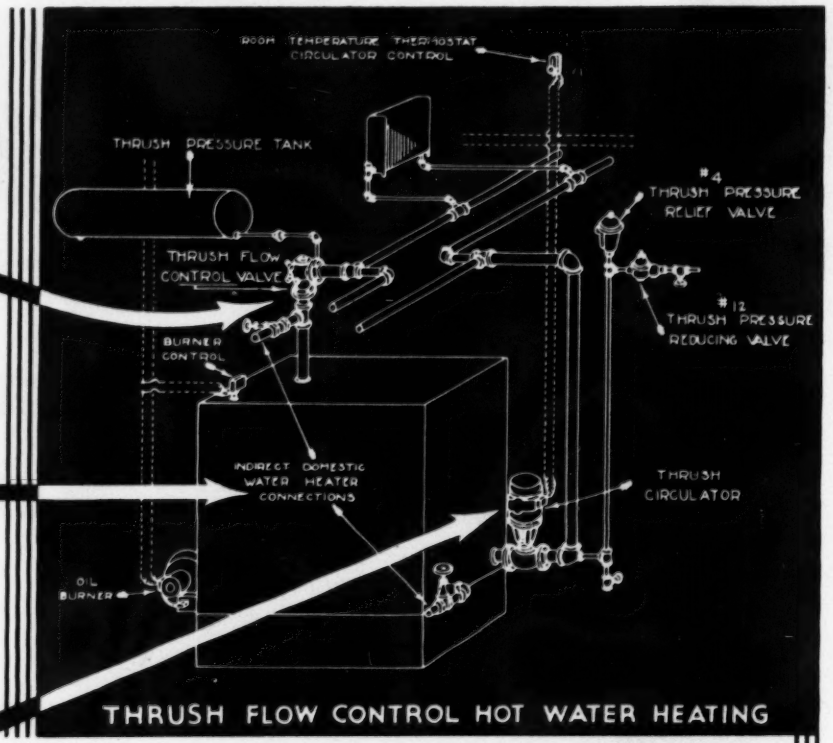
Sturtevant
REG. U.S. PAT. OFF.

**ONE OF AMERICA'S MOST COMPREHENSIVE LINES OF AIR CONDITIONING EQUIPMENT**

**Complete FLOW CONTROL** *Automatic*

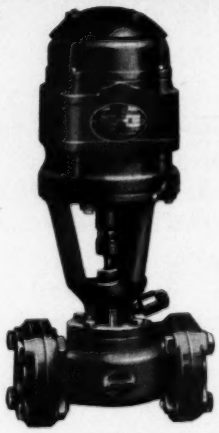
**SUMMER OR WINTER DOMESTIC HOT WATER SUPPLY** *Really Hot Domestic Hot Water a by-product*

**FORCED CIRCULATION** *more home comfort and fuel economy*




THRUSH FLOW CONTROL HOT WATER HEATING

# FORCED CIRCULATION *assures greater heating efficiency* FOR YOUR OIL BURNER!

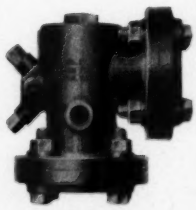


Thrush Water Circulator

INSURE quick heating and lowest fuel cost on Hot Water Heating jobs fired with your Oil Burner by including the Thrush Flow Control System in every installation. Cure heating troubles that may exist in the heating system itself . . . give your burner a chance to live up to its reputation! Build good will and customer satisfaction by providing *instantaneous* heating.

Thrush Flow Control Heating System completely controls the physical distribution of the heating medium. It can be installed on old or new jobs easily and inexpensively. It not only cuts down the running time of the burner by avoiding heat losses and *preventing* needless circulation through the system when heat is not needed —but when heat *is* needed, *forced circulating* hot water reaches every radiator in every room instantly.

A really dependable Domestic Hot Water supply at negligible cost is assured, *with complete freedom from over-heating* when burner is operated in the summer. It's the simplest and surest method of control yet developed. *Use the coupon to ask for our new booklet now.*



Thrush Flow Control Valve (Patented)

EXHIBITING AT THE INTERNATIONAL HEATING AND VENTILATING EXPOSITION NEW YORK, FEB. 5 TO 9, 1934

MAIL THIS COUPON!

H. A. Thrush & Co., Box 459, Peru, Ind.

Please send booklet describing Thrush Flow Control Heating System and its advantages for use with mechanical firing devices.

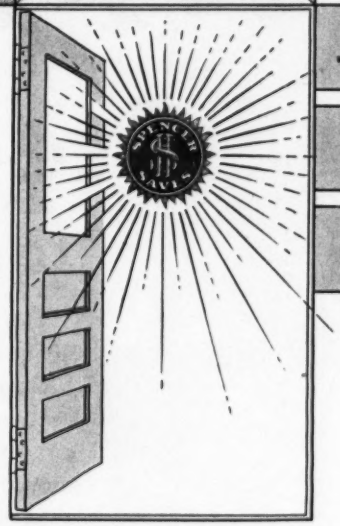
Name_____

Address_____

City_____ State_____

**H. A. THRUSH & CO.**
PERU, INDIANA.

# Looking into 1934 —and what it holds for You



*Mr. Heating Contractor:*

WE want to make our greeting to you for the New Year, something MORE than merely the customary cordial good wishes.

We prefer to present what we believe are some concrete evidences that 1934 *will be* a BETTER YEAR. Also, to mention briefly some of the things that Spencer is doing and will do, to help MAKE it a better year for you, as well as for ourselves.

Here are some of the favorable factors for heating contractors that we can see for 1934:

Encouraging reports of general business improvement; a very extensive Public Works program; a rapidly increasing number of obsolete and inefficient boilers that soon will HAVE to be replaced; a steadily growing public interest in Automatic Heat at low cost, and more stabilized trade conditions that mean more profitable business.

We do NOT believe that heating contractors who sit back and depend on these favorable factors ALONE, will see very much improvement. You can't expect the winds to drive your ship forward, if you don't hoist the sails. It is going to take a great deal of hard work and careful planning. We believe this applies to us as much as to you.

That is why Spencer is putting forth even greater efforts; designing new products to meet new conditions; planning further sales co-operation for the heating contractor; so that both of us can get the fullest benefit from the more promising conditions.

Details of Spencer's 1934 program will be announced during the months to come. We invite you to watch for and take advantage of them.

*Very truly yours,*
C. N. TULL, *President*

SPENCER HEATER COMPANY, Williamsport, Pa.
*Division of Cord Corporation*
BRANCHES IN PRINCIPAL CITIES
The Spencer Foundry Company, Ltd., Penetanguishene, Ontario and Montreal, Quebec, Canada

**SPENCER BOILERS**
*for steam, vapor or hot water*

SPENCER MAGAZINE FEED BOILERS
Cast Iron Sectional
Capacities, 175 to 3,250 sq. ft.
Steel Tubular
Capacities, 275 to 16,400 sq. ft.

SPENCER OIL BURNING
Steel Tubular Boilers
Capacities, 2,250 to 40,000 sq. ft.

SPENCER STOKER BOILER UNITS
Steel Tubular Boiler
and Stoker, built as a unit,
automatically controlled
Capacities, 2,250 to 40,000 sq. ft.

# KEWANEE

## ROUND Steel Boiler

## for Burning Oil

The most efficient Oil Burner built can't be economical unless the boiler is right. Here's a Kewanee *especially* built for heating homes and smaller buildings with oil . . . a boiler so correctly proportioned that the maximum amount of heat created by the burning oil is used to warm the building instead of being wasted up the stack. And it is *built of steel* providing that extra strength which oil burning boilers must have.

★

### DOMESTIC HOT *Water Heater Included* WITHOUT EXTRA COST

In every Kewanee Round Boiler a "built-in" water coil provides hot water for domestic use, eliminating any need for a separate hot water heater. A big coil heater with *extra* capacity can be furnished.

### Other Features Making Kewanee Round Boilers Ideal for Burning Oil

**Spinner Blades**
These spinner blades, inside the boiler tubes, create a rotating flow of hot gases, compelling them to make intimate contact with the walls of the tubes, thus transferring a greater proportion of the heat to the water in the boiler.

**Two-Way Draft Adjuster**
Most chimneys have too much draft for efficiently burning oil or gas: yet, Underwriters Regulations forbid the use of fixable choke dampers. The Kewanee Draft Adjuster (patented) complies with all regulations yet provides accurate and even control of the draft automatically. It also protects against chimney down drafts which sometimes extinguish pilot lights. It is standard equipment—not an extra.

**Front, Rear or Side Firing**
The Kewanee Round Boiler is so designed that the oil burner can be installed at the front, rear or either side; or at any angle.

### 2-Pass Tubes Utilize All The Heat

Some round boilers are made with no flues whatever, others have one or two irregularly shaped gas passages which permit a large proportion of the heat to go up the stack unused. In the Kewanee Round Boiler the radiant heat of combustion is first absorbed by direct heating surfaces in the firebox—then the hot gases are compelled to make a forward pass through the lower set of tubes, then to travel back through the upper bank of tubes before reaching the chimney. This improved design, by providing longer travel of the gases, utilizes all of the available heat and effects a decided saving in fuel.

### Steel for Extra Life

Oil produces intense heat. Also, the intermittent operation of an oil burner causes quick and wide temperature variation within the boiler. This demands unusual strength. The sturdy steel plate construction of Kewanee Round Boilers gives them that extra strength so necessary in oil burning boilers.

**KEWANEE BOILER CORPORATION**
KEWANEE, ILLINOIS
BRANCHES IN SIXTY-ONE PRINCIPAL CITIES

MEMO WRITE FOR FOLDER CO-93

# Air Conditioning *is basis of* Model Home

By W. G. Senft

EARLY last September the public was invited to inspect Cincinnati's first all-year air conditioned home. Winter air conditioning was not new to many of the visitors and most of them had experienced cooling effects in theaters and auditoriums, but the combination that provided air conditioning all year from the same circulating system was something different and interesting. So much has been written and said that seems to the writer to reflect a somewhat imperfect conception of what constitutes true air conditioning, we think it not out of place to state just what we had set out to accomplish in this installation. In the first place, as is usual with a residence, the air changes provided by infiltration were of ample frequency for the needs of normal occupancy. It was required then, to clean from this infiltrated air, its content of foreign matter, humidify or dehumidify it as the season demanded, and heat or cool it to suit the requirements of outside changes.

Since the equipment for accomplishing these ends was to be assembled in this installation in a single limited area, a distribution system was required that would function successfully for either the heating or the cooling loads. Circulation from outlets above the breathing line at a velocity such as will insure diffusion over the areas affected with but a minor deference to gravity effect, is the basis of the air distribution in heating. This same circulating method was used for the cooling load where

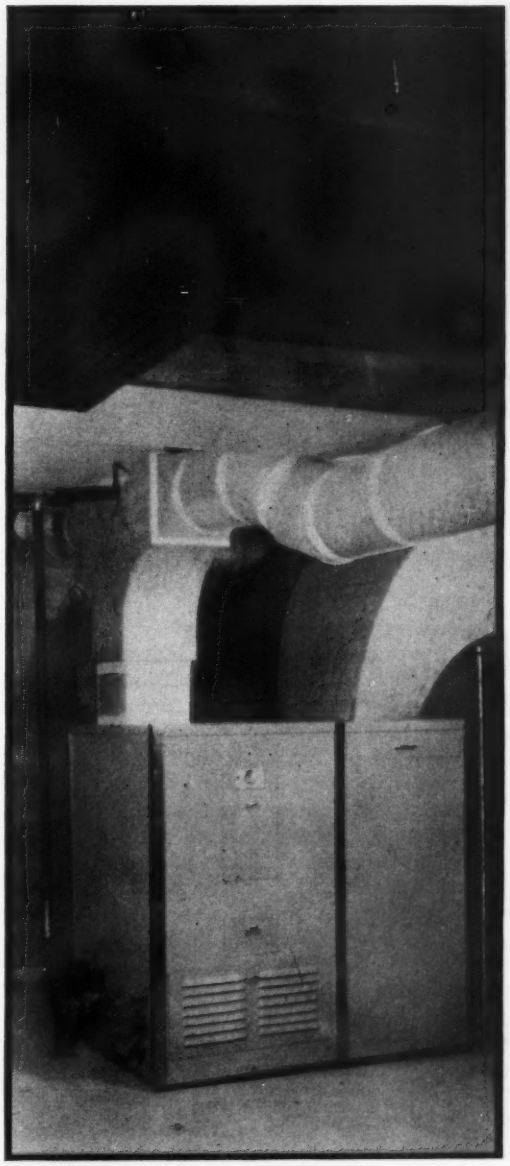


**Fig. 1—Here is a view of the air conditioning plant which was installed in the basement of the model home**

***This article outlines how automatic heat and air conditioning dealers can enlist cooperation of interested groups in promoting model homes which feature air conditioning***

| HEAT GAIN CALCULATIONS | $ GLASS | $ NET WALL | | BTU/HR. PER 1° F. | T.D. | TOTAL B.T.U. |
|---|---|---|---|---|---|---|
| NORTH WALL | 80 88 | 390 39 | | 127 | 10 | 1270 |
| SOUTH WALL | 50 55 | 320 32 | | 87 | " | 870 |
| EAST WALL | 70 77 | 470 47 | | 124 | " | 1240 |
| WEST WALL | 72 1152 | 428 43 | | 1195 | " | 11950 |
| CEILING | | | 828 828 | 828 | " | 828 |
| FLOOR | | | 690 234.6 | 234.6 | " | 2346 |
| OCCUPANCY | 400 x 3 | | | | | 1200 |
| MOISTURE COND & VENTILATION | 13,088 x 2 x .568 | | | | | 14860 |
| | | | | | | |
| TOTALS | | | | | | 34,564 |

CONDUCTANCE = K. GLASS-K=1.1 (GREATEST AREA EXPOSED TO SUN AT ONCE K=16) WALLS K=.1 CEILING K=.1 FLOOR K=.34

Fig. 2—The tabulation of heat gain calculations is shown here. The cooling requirements were based on these figures

the prevention of stratification and avoidance of drafts is of even greater importance than in handling the winter requirements. With this system of distribution smaller outlets and ducts than normally are demanded were designed for in providing the same amount of either heating or cooling. Basement head room was maintained at a maximum as far as ducts are concerned.

The heating requirements were calculated to be 77,000 Btu. at 0 deg. Fahr. for a 70 deg. Fahr. maintained temperature and the cubic content was figured to be approximately 13,000 cu. ft. In arriving at the cooling requirements account was taken of the fact that as the summer advances our senses are apparently tempered to extremes so that our comfort is greatest at varying temperatures through the season. It was accordingly figured to provide for a 10 degree drop under outside temperature for the peak capacity. On that basis our requirement figured 36,000 Btu. or approximately three tons of refrigeration. Inasmuch as the range of temperature difference for cooled air supply is much less than is the case with the heat supply, the necessary fan capacity for high efficiency of the cooling cycle received first consideration. On the other hand, with the overhead type of distribution, the outlet cooling temperature was made lower with consequent reduced fan requirements for the calculated load.

Choice was made of an air conditioning unit having a fan capacity, at standard conditions, of 950 C.F.M. This unit complete with filters and a hygrostat-controlled humidifier, was selected as being ample for the winter service. The housing for the evaporator coils was constructed in proximity to and just ahead of the return air entry of the air conditioner with a manually-controlled by-pass damper introducing the return-air flow from the winter circuit just above this housing. Provisions were made for the ready draining of the moisture of dehumidification and the compressor and belted motor were in an accessible position nearby.

When operating for heating, the thermostat and hygrostat assembly located in a central spot on the first floor, were placed in entire control of all functioning equipment. A close range of temperature and humidity results from the combination of uniform diffusion and rapid delivery. When summer requirements loom, gas is cut off from the pilot, a so-called summer switch is used to make available the use of the fan without its normal thermostatic control and the by-pass damper is opened into the cooling coil housing. All is now in readiness to turn on the compressor as needed for as much of that 10-degree cooling effect as the owner desires.

Just how effective the installation could be, was illus-

Fig. 3—The exterior of the model home which was air conditioned is shown here

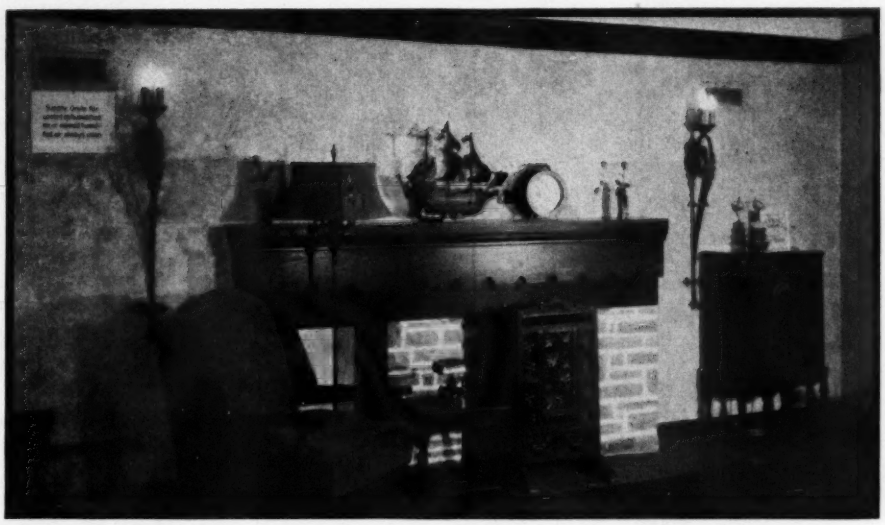


Fig. 4—Interior of the living room with a descriptive card calling attention to the air conditioning supply grillle

trated during some extremely hot days of the Model Home's reception to the public. The load was, of course, much above normal due to the crowding of large numbers of people in an area designed for a family of from three to five, but a high degree of contrast to outside conditions was maintained throughout the inspection period. An interesting feature to the visitors was the rapid accumulation of the product of dehumidification in a five gallon container placed under the coil housing drain which, for instance, was filled from 4 to 10 p. m. on Sunday, September 17.

Equally interesting as the engineering aspects of this model home, one of the first in the United States, outside of the Century of Progress, to be entirely air conditioned for all seasons, was the merchandising. In fact, the experience leads one to believe that the enterprising heating dealer in many communities will do well to consider whether or not he can originate and sponsor such an all air conditioned model home to definitely tie to his firm the present air-mindedness of his community.

In this project, it was possible to secure the one hundred per cent cooperation which included the assistance of the manufacturers of building materials, of the real estate man in whose subdivision the house was erected, the builder of fine homes who constructed it, the utility supplying the gas and electricity, the manufacturer of the heating and air conditioning equipment, of the manufacturer of the cooling and dehumidifying summer air conditioning unit, the various supply contractors furnishing kitchen, bathroom equipment, interior decorations, furniture, etc. With such a basis it is probably possible that many heating dealers can repeat this performance this coming spring when all signs point toward a resumption of modest home building, using the usual profit margin to cover the cost of advertising and sales promotion adventure.

HEAT LOSS CALCULATIONS. A B A-AREA SQ.FT. B-B.T.U./1°

| ROOM | # GLASS | # NET WALL | # NET WALL | # CEIL. | # FLOOR | # CU.FT. AIR CHGE | BTU/HR PER 1°F | T.D | TOTAL B.T.U. |
|---|---|---|---|---|---|---|---|---|---|
| LIVING | 49 53.9 | 267.0 56.8 | 124.2 66.0 | | 234.5 43.3 | 2740 54.8 | 244.8 | 70 | 17,150 |
| HALL | 21 25.1 | 69 6.9 | | | 94 16.0 | 870 26.1 | 72.1 | " | 5,050 |
| DINING | 445 43.0 | 192.3 19.2 | 55.2 29.2 | | 173.5 29.5 | 1475 44.2 | 171.1 | " | 12,000 |
| BRKFAST | 19 20.9 | 91.5 9.1 | | | 70 11.9 | 595 11.9 | 53.8 | " | 3,760 |
| KITCHEN | 23.3 25.6 | 162.7 16.3 | | | 98 16.7 | 834 25.0 | 83.6 | " | 5850 |
| MASTER B. | 83.5 32.5 | 230.5 23.1 | | 224 22.4 | | 1800 36.0 | 114.0 | " | 8000 |
| DRESSING | 10.5 11.6 | 53.5 5.4 | 144 14.4 | 72 7.2 | 72 7.2 | 576 11.5 | 57.3 | " | 4,000 |
| UPPER HALL | 12.8 14.1 | 37.2 3.7 | | 119 11.9 | | 950 9.0 | 48.7 | " | 3,410 |
| BED # 1 | 28 30.8 | 224 22.4 | | 201.5 20.2 | | 1610 32.2 | 105.6 | " | 7,400 |
| BATH | 12.8 14.1 | 93.2 9.3 | | 55.3 5.5 | | 442 8.8 | 37.7 | 80 | 4,000 |
| BED # 2 | 27.5 30.3 | 344.5 34.5 | | 149 14.9 | | 1180 23.8 | 93.5 | 70 | 6545 |
| | | | | | | | | | |
| | | | | | | | | | |
| TOTALS | | | | | | | | | 77,165 |

HEAT TRANSFER FACTORS / K / { GLASS = K = 1.1 STUCCO WALLS WITH ROCKWOOL FILL - K = .1 CEILING, 4" ROCKWOOL = K = .3 MASONRY WALLS - K = .53 FLOORS - K = .34 INFILTRATION = CU. CONT X .02

Fig. 5—At the right are the heat loss calculations, on which were based the winter heating and air conditioning requirements

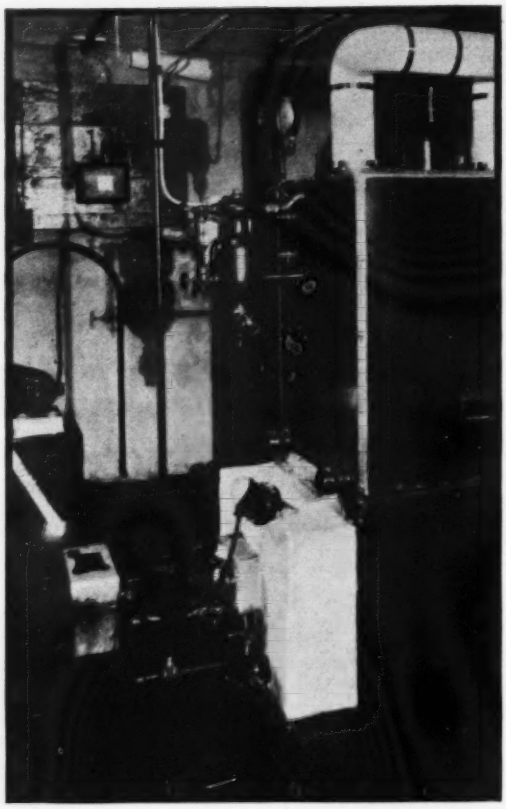


**Fig. 1—"We have made hundreds of installations under boilers designed for gas by either providing a pit below the floor level or by raising the boiler"**

# How *to* Install Oil Burners *Under* Gas Boilers

CAN oil burners be placed under boilers which have been designed for the use of gas and can the combination be operated so as to give satisfactory results? If so, how can this be done; what precautions should be taken; what special changes should be made in the installation? These questions have been put to us by readers. Since they center around specific equipment and since the different characteristics of the different oil burners and gas boilers must be considered, ideas have been obtained from those closely associated with the designing of the equipment concerned.

In the first place, it is necessary to consider the characteristics of gas burning boilers. As stated by one oil burner manufacturers' engineer, "The combustion space required for gas is very much smaller than that required for oil and the only way an oil burner can be applied is to build a new brick foundation on which to set the boiler, and to line it with a refractory lining.

### CHARACTERISTICS OF GAS FLAME

"In applying an oil burner to a gas burning boiler, it is absolutely necessary to raise the boiler and build a new combustion chamber under it. In a gas fired boiler, the gas flame impinges directly upon the lower tubes but this can not be permitted in oil burning. The lowest the tubes should be is from 30 in. to 32 in. above the bottom of the combustion chamber and the center of the nozzle of the oil burner should not be more than 6 in. or 7 in. above the floor. This will permit the oil to burn completely in suspension and none of the unburned oil vapor will strike the cool tubes and condense to form carbon.

"The flue passages in a gas fired boiler are so very small that the least bit of smoking will clog them, hence the necessity of keeping the fire so far away from the tubes. We have supervised the installation of a number of oil burners in gas fired boilers and they are operating very successfully, but in each case

it was essential that the boiler be raised to at least 30 in."

Another engineer states, in regard to the installation of oil burners under gas designed boilers that, "Frankly, such types of installations are our meat. We have many hundreds of such installations throughout the country and find that without exception we provide satisfactory performance.

"In actual installations, we find that it is absolutely necessary to do one of two things, whichever is possible under the local conditions of the premises in which the burner is being installed.

### PROVIDE PROPER COMBUSTION SPACE

"It is advisable to either raise the boiler to provide proper combination space in the event suitable head room is available above the boiler, or it is essential and necessary to pit the burner when suitable head room is not available. Practically without exception, one of these two actions can be taken and if proper attention is paid to providing suitable and correct combustion space ideal results are experienced. We have many hundreds of installations throughout the country in all types of gas burning boilers and in all instances have had what we feel is remarkable success."

The engineering department of still another manufacturer of oil burners makes these comments: "Special attention must be given to combustion chamber dimensions. Where space is limited, the fire brick may be laid on edge. Always use a good grade of oil and adjust the burner to produce a clean flame. Where stack temperatures are low, a slight increase in the air supply will not materially reduce the efficiency. A clean flame must always be used in boilers with small flue passages to insure dependable heating service without frequent cleaning.

"We have made hundreds of installations under boilers designed for gas by either providing a pit below the floor level or by raising the boiler the necessary amount for the installation of the burner. These installations have been universally satisfactory and provide the same economical operation that these boilers are designed to give."

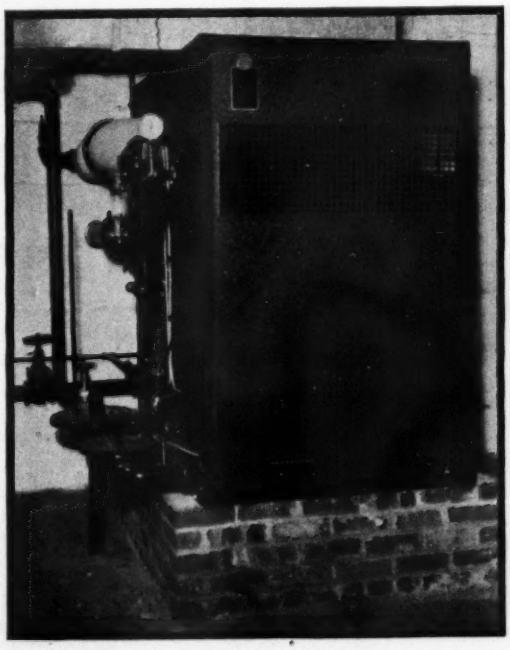


Fig. 2—"Each installation presents an engineering problem of its own and installations only have been attempted after a very careful measurement of the combustion space is made."

In regard to applying a rotary flame burner, the following comments from the engineering department of still another manufacturer are interesting: "To install a rotary wall flame burner under a gas boiler, it is necessary to build a combustion chamber below the water sections and to allow sufficient space for the burner installation below this combustion chamber. The dimensions of the combustion chamber, of course, depend upon the size of the boiler but it is desirable that the combustion chamber be at least 16 in. to 18 in. high and that at least 12 in. be provided below this space, for the burner installation, thus making the total height required below the water sections approximately 30 in."

A contrasting side of converting gas boiler installations is pointed out by this same manufacturer's engineering department as follows: "As a general rule we are not in favor of converting gas boilers into oil burning because of the large amount of labor involved in changing over.

### PIPING CHANGES INVOLVED

"In raising the water section, this involves piping changes which may or may not be permissible depending upon the installation and available height in the basement. In other cases, gas burning boilers have been changed over for oil burning by building a pit for the combustion chamber but this also is undesirable because of the large amount of labor involved and because the burner is located below the basement floor line so that in case of flood it is apt to be submerged in water and, therefore, would be rendered inoperative."

The chief engineer of one manufacturer making a rotary type of burner states that it is not gone in for this class of boiler conversion work. He further states that, "This is really a field for the pressure type of burner and this type of application for the pressure burner is generally quite successful and is widely done by almost all pressure oil burner manufacturers." He further states, "I believe there is one burner that is applied to this type of boiler with a minimum amount of rebuilding work." The idea here is that, "This burner can be equipped with a special nozzle that throws a flat flame. As a result of this, not as much depth is required under the boiler and consequently it is necessary only to provide a minimum of extra space under the boiler."

Along this line, it is interesting to note what the manufacturer of the oil burner just referred to has to say. His statement is, "This organization has made a rather extensive number of gas conversion jobs by applying oil burners to various gas fired boilers.

(Continued on page 73)

Fig. 1—Note the high ceiling and the large glass exposure at the end of this room. With air conditioning, it has been free from drafts and more satisfactorily heated than before

# Air Conditioning Job Is Operated With Gas

## *Weatherstripping cuts down requirements of equipment by an amount of 13 per cent*

THE installation shown in Fig. 3 consists of an air conditioning unit and a gas-fired water boiler. It is installed in the basement of a residence which has four stories and basement, stone front, and northern and southern exposure only. The residence has been completely weather stripped.

It was figured that the equivalent direct radiation for this particular job was 440 sq. ft. of steam without weather stripping and 384 sq. ft. with weather stripping. No exposure has been considered for the party walls. The installation replaces a gravity warm air furnace, and some of the existing ducts were used in the air conditioning installation. The meter has been taken each month in order to ascertain the amount of gas and electricity used over the winter heating period.

The attached photo marked Fig. 3 shows the water boiler connected to the conditioning equipment thereby supplying the two radiation elements in the unit with hot water at a temperature of approximately 180 deg. Fahr. The return to the boiler is at the bottom of the left side of the boiler and the circulation is by gravity. The boiler is equipped with a pressure type of hot water heating system. The room thermostat is located in the living room, and when it calls for heat, it operates the boiler solenoid which brings on the gas boiler. When the water in the boiler reaches a certain prescribed temperature, an electric switch is closed which brings on the conditioning unit motor, and thus starts the circulation of warm air. When the thermostat is satisfied, it

. closes the boiler solenoid and in a few minutes the water temperature in the boiler drops sufficiently to open the same electric switch thereby shutting off the conditioning unit fan motor. When the thermostat is not calling for heat, only the pilot of the gas boiler is burning. It takes but a few minutes after the boiler comes on to raise the temperature sufficiently high to bring on the fan motor.

The boiler is equipped with safety devices and accessories required for completely automatic control.

The humidity is controlled by a humidistat located in the living room which opens or closes the humidifier solenoid located on the conditioning unit. In this manner water is supplied to the humidifier spray nozzle, as required.

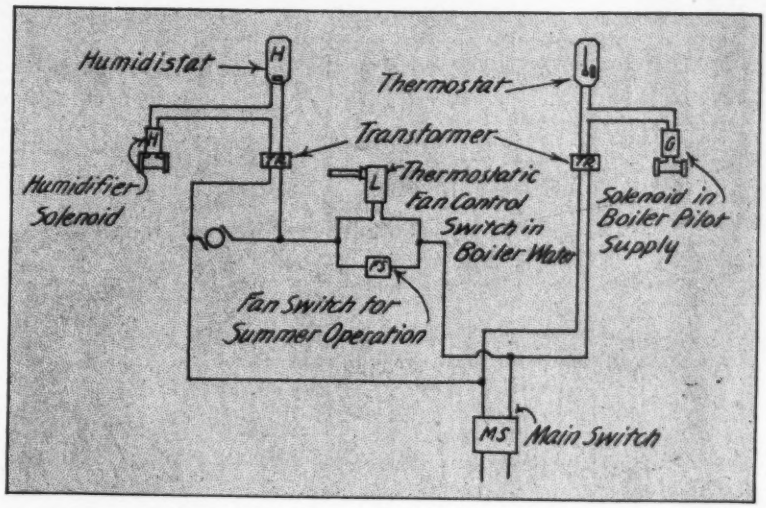



**Fig. 2—Here is an electrical diagram showing how the equipment is controlled. Provisions are included to permit both summer and winter operation of the plant**

Summer cooling is accomplished in this particular installation by means of circulating tap water through the two radiation elements of the conditioning unit. For summer operation the large gate valves in the flow and return lines from and to the boiler are closed. In the summer the fan passes filtered air through the cooling elements to the conditioned quarters.

A reference to the illustration at the upper right hand corner of this page, Fig. 2, indicates how the control arrangements have been made. There is a main switch which turns on or off all of the electric current. As indicated, this is a manual control. Beyond the main switch, the circuit divides into two branches. One branch, the right one in the diagram, covers temperature control while the left circuit provides humidity control.

As for the temperature control circuit, the wiring diagram shows the thermostat connected in series with the solenoid or magnetic valve in the boiler pilot supply. This means that it is necessary for the thermostat to call for heat and make an electrical contact in order to open the gas valve and supply fuel for heating. The transformers serve to reduce the voltage in the lines to the thermostat and the humidistat. The humidity control is in series with the fan controls. In other words, it is necessary for the fan to be operating before the humidifier can function. In the winter, the thermostatic fan control regulates the fan while in summer the fan switch governs. Note that the fan is connected in parallel with the humidifier solenoid. The humidifier control is connected in series.

The photo marked Fig. 1 illustrates the living room of this particular residence. In spite of the very high ceilings and large glass exposure at the end of the room, the owner claims that this room is free from drafts and is more satisfactorily heated than it ever was.

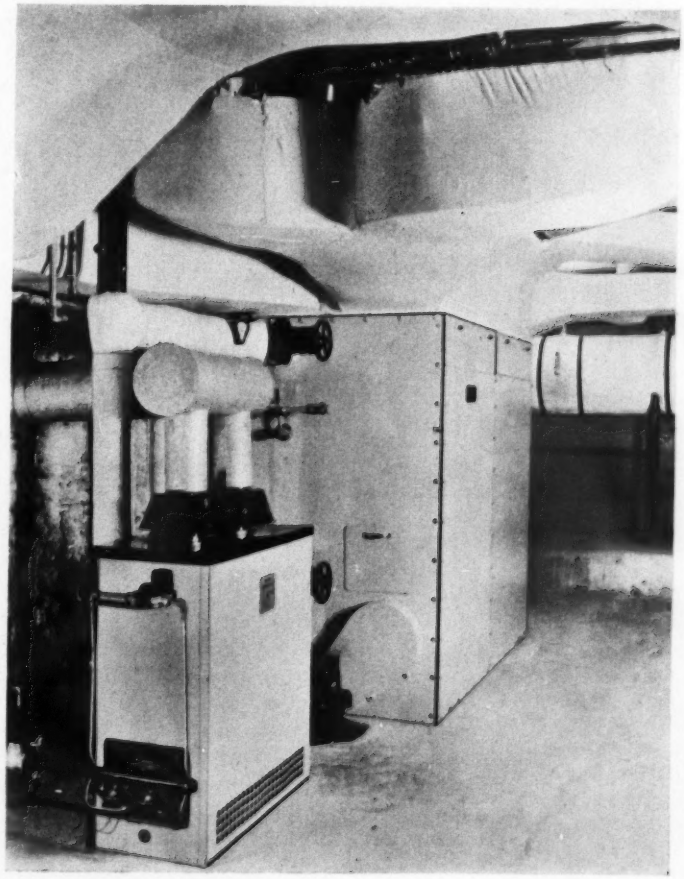


**Fig. 3—At the right is a view of the air conditioning equipment installed in the basement. The ducts were completely covered with insulation**

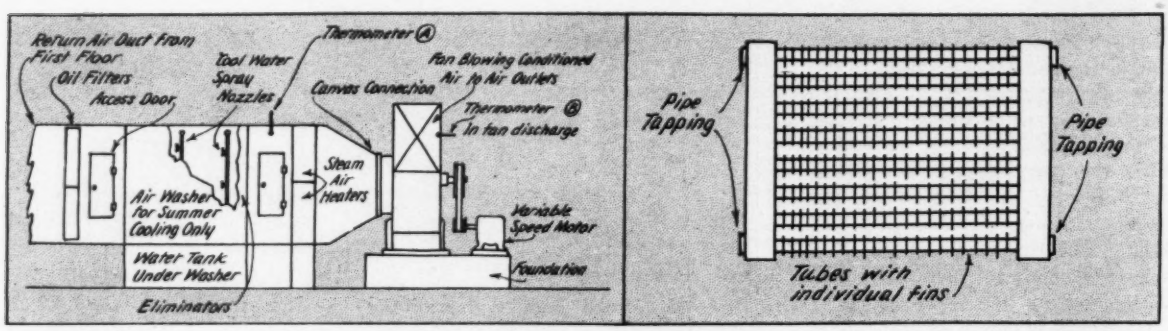



**Fig. 1—At left, above, sketch shows arrangement of the air conditioning apparatus in the job described in this article**

**Fig. 2.—A sketch of one of the air heaters contained in the installation is shown in the drawing at the right**

# Venting Causes Trouble in Air Conditioning Job

## *Earl Brown solves it*

MY son is enrolled in a small college in central Wisconsin and when my travels take me near this college town, naturally I always go to see him. Last winter, during one of these occasional visits, we had occasion to call upon the president of the college at his new home. The maid who answered our ring that cold, windy day was wearing a heavy jacket over her uniform and when we were ushered into the president's study we found that he was using a small fan heater in order to keep comfortable.

After the usual exchange of courtesies, he started to apologize for the cool reception, glancing meanwhile at a thermometer hanging on the wall.

"It's just 65 deg. Fahr. in here now and our air conditioning system has been running four hours. I presume we shall have to run the system all night hereafter in order to prevent the house from cooling. I prefer not to do that, but we cannot freeze until noon on every cold day."

"What seems to be your trouble?" I asked and inwardly said goodby to my resolution to forget my business for a day or two.

"Nothing, except that we cannot get the house warm enough in cold weather?"

"Does it heat satisfactorily in mild weather?"

"Oh, yes, indeed."

"May I look over your heating plant? I am a so-called heating expert and possibly I can be of some service to you."

"I would appreciate that, I'm sure. I remember now that your son told me of your work some time ago. Would you care to talk to Mr. Jamison, the contractor who installed the heating equipment? I know that he would be glad to carry out any suggestions you might have."

While we were talking of other things Mr. Jamison arrived in response to the president's call. He was very much upset about the failure of this plant to operate properly and said that he was at a loss to account for the trouble.

In the basement I found an air conditioning system arranged about as shown in Fig. 1.

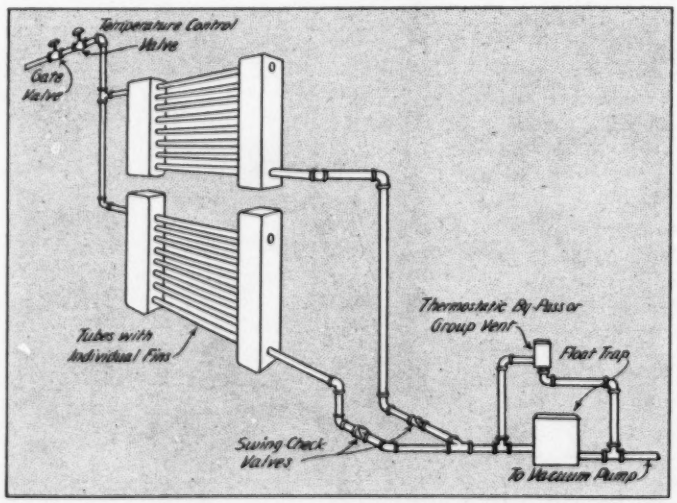



**Fig. 3—The piping connections which caused an uneven heating of the air are indicated at the left**

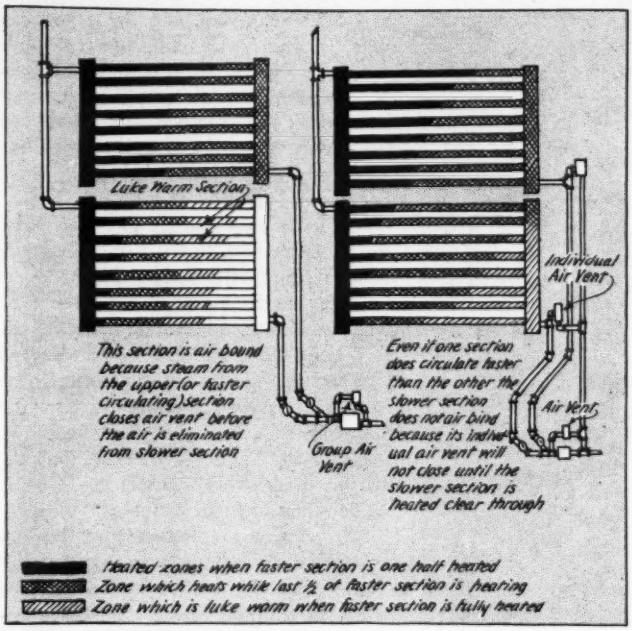

Luke Warm Section
Individual Air Vent
This section is air bound because steam from the upper (or faster circulating) section closes air vent before the air is eliminated from slower section
Even if one section does circulate faster than the other the slower section does not air bind because its individual air vent will not close until the slower section is heated clear through
Air Vents
Group Air Vent
Heated zones when faster section is one half heated
Zone which heats while last ½ of faster section is heating
Zone which is luke warm when faster section is fully heated

**Fig. 4—The sketch at the left indicates the steam circulation in the two heaters as a result of the original piping arrangement shown in Fig. 3. At the right is Fig. 5 which shows the steam circulation with correctly located individual air vents**

The return air from the house is first drawn through 4-in. thick oil filters that remove practically all of the dirt from the air. Then the air passes through the air washer, which at the time of our visit was not in operation because it was intended for summer cooling only. It was provided with numerous spray nozzles through which the cooling water was to be pumped in warm weather.

After leaving the air washer the air entered the air heaters, where it was warmed to whatever temperature was required by the house thermostat At the time, the thermostat had the control valve wide open because the house was below the desired temperature.

From the air heaters the warmed air entered the fan and was distributed throughout the house by a well-designed system of duct work.

The steam came from the college plant at about 5 lb. pressure and the condensate was returned to the boiler house by a small vacuum pump, so there were no problems of steam supply. The only trouble had been lack of heat on cold days.

Mr. Jamison thought that the trouble was located in the air heaters, but he did not know just where. "I bought them," he said, "to heat 3,000 cu. ft. of air per minute from 65 deg. Fahr. to 105 deg. Fahr., but they did not seem to do it. Right now the air is entering the heaters at 60 deg. Fahr. according to these thermometers (A and B) and leaving the fan at 90 deg. Fahr. I had these thermometers tested for accuracy and I even interchanged them. The greatest increase in air temperature I ever got was 32 deg. Fahr. I wrote to the manufacturer and he suggested that the fan might be pulling more than 3,000 c.f.m., which would overload the heaters. Yesterday the fan salesman was in town and he measured the air delivery of the fan, finding that it handles 2,930 c.f.m., which is certainly close enough to 3,000 for all practical purposes.

While he was talking I had looked over the piping system, which is shown approximately in Fig. 3. I suggested that we open the access door between the air washer and the air heaters. I saw then that each air heater consisted of 8 or 9 tubes with individual fins; that is, the fins were attached only to one tube and did not extend from tube to tube. The tubes were horizontal. See Fig. 2. This looked interesting, so I squeezed through the access door and felt of the various tubes. The return ends of all the tubes in the lower section were almost cold and the centers of the tubes were only lukewarm. The upper section was hot all over.

When Mr. Jamison felt the tubes in the lower section he was amazed to find them so unevenly heated.

"What causes that?" he asked.

"The air heaters are not properly vented. Your present arrangement will work perfectly, provided the upper and lower sections always circulate at exactly the same speed, but that, as you know, is virtually impossible. If you continue to operate as you are doing, you will find that sometimes they will both heat evenly, but most of the time one heater will be hot all over while the other is not. This little sketch (Fig. 4) may help explain my meaning.

"At the present time the upper section is hot all over while the lower one is about half cold. In other words,

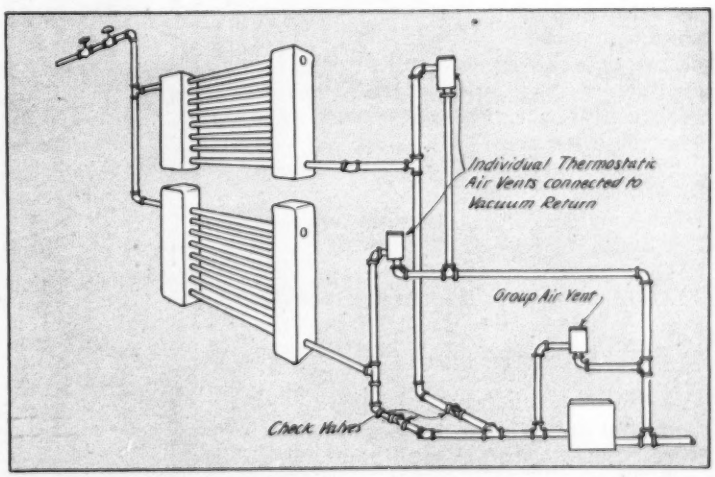



**Fig. 6—Suggested piping changes are shown at the right, for correcting the problem of uneven heating**

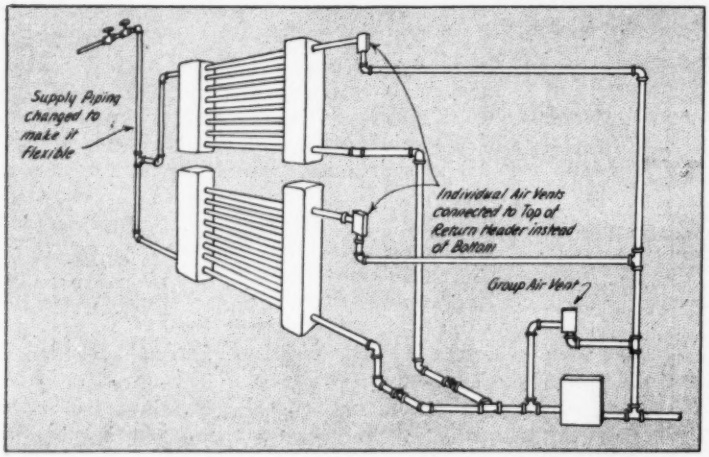

Supply Piping changed to make it flexible
Individual Air Vents connected to Top of Return Header instead of Bottom
Group Air Vent

**Fig. 7—This piping arrangement heated unevenly and caused leaks in the second job which is considered in this article**

the installation is working at about ¾ capacity. This checks with your temperature because you are getting only ¾ of your expected temperature rise.

"When the steam was turned on this morning the upper section heated through first, starting from the upper supply end and ending in the lower return end, about as I've shown in my sketch. As soon as the steam reached the return it passed down the return pipe and shut off the thermostatic group air vent around the float trap. This meant that no more air could escape from either the lower or the upper sections.

"In the meantime the lower section was only ½ heated, with the result that a lot of air was trapped in it, causing the condition which we found." (See Fig. 4.)

"What makes one section faster or slower than the other?"

"Any one of a thousand things. A little scale in some connection, slightly less pitch, a little greater air flow, an extra fitting or two, a burr on an unreamed pipe, and one check valve flapper that is a little heavier than the other, are a few of the many things which will make one section circulate more slowly than the other."

"That is easily understood," Mr. Jamison said, "for in a simple heating system it is sometimes difficult to get two radiators in the same room to heat evenly, and I suppose that when you use high capacity heaters such as we have on air conditioning jobs, every slight difference is magnified."

"And now, what is the remedy for this situation?"

"The installation of individual vents in each section," I replied. See Fig. 6.

"How will that circulate?"

"About the same as at present, except that when one section heats through faster than the other it will close off its own vent and the group vent, but the air from the slower section will continue to leave through its individual vent until the section is heated throughout. (Fig. 5.) In other words, one section will usually be slower than the other, but the faster one will not keep the slower one from being properly vented."

"That is an easy change to make," Mr. Jamison remarked, "and it sounds good. I'll do it this afternoon. However, it just occurred to me that we used individual vents on the heaters over in the new college office building. We installed a system over there almost identical with this and I remember distinctly that the steamfitter I had on the job insisted on using separate vents. However, that job is giving us a lot of trouble, too."

"The same kind of trouble?"

"Partly. We are not getting the full temperature rise, though we are coming closer than we do here. The principal trouble over there is that the heaters are developing leaks. We have repaired both sections and now they are starting to leak again."

"Let's go over there."

I told the president that I wanted to see the office building installation before we decided definitely about the changes in his home, and promised to return later to tell him whatever I might have discovered.

### CHANGE THE PIPING SYSTEM

My son, who had been an interested observer of this practical application of the theories he had been studying, Mr. Jamison the contractor and I walked over to the office building. Mr. Jamison told me that in this building they had revised the supply piping connections because they thought that the original connections might be straining the tubes. The change did not seem to have

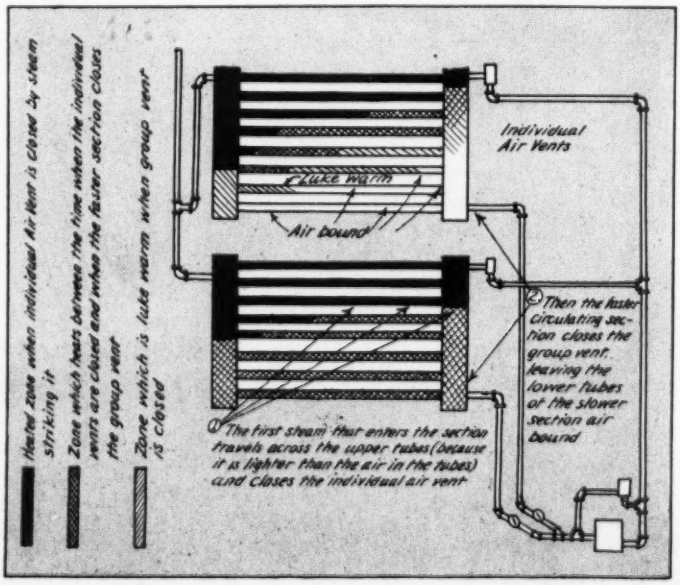

Heated zone when individual Air Vent is closed by steam striking it
Zone which heats between the time when the individual vents are closed and when the faster section closes the group vent
Zone which is luke warm when group vent is closed
Individual Air Vents
Luke warm
Air bound
Then the faster circulating section closes the group vent, leaving the lower tubes of the slower section air bound
The first steam that enters the section travels across the upper tubes (because it is lighter than the air in the tubes) and closes the individual air vent

**Fig. 8—This diagram shows the steam circulation resulting from the incorrectly located individual air vents shown in Fig. 7**

# *How* BURNHAMS Boost You and Your Business

**Let me tell you what the engineer on the New York Central's crack train, The Century, told me a while ago about boosters.**

It happened at Albany. There was a hold up. Something was the matter with the track ahead. The engineer was out of the cab, and down looking over his pet.

If you know Albany, you recall what a curve there is there leaving the station for New York. Makes getting started with a heavy train, a mighty mean job. In spite of which, those engines light out of there easy as pie.

Spoke to the engineer about what a time they used to have getting under way. "Yep, that's so," said he, "but not since we've had these engines with boosters on the tender truck. We give the steam to that auxiliary booster engine to help get started. Then when she's a-going along good, ease off on the booster and she just rolls along pretty as anything."

But what has all that to do with you and the Burnham Line of Boilers, Radiators, Air Valves and what not? Just this. Many a one has pulled his business out of a hard starting curve, by taking full advantage of the boost the Burnham Line gave them.

That may sound like advertising ballyhoo to you. But when it makes your cash register ring, it will sound like sweet music. Furthermore—and you know that's a lot more than just further—you'll have pleasant dealings, dealing with Burnham. You'll be dealing with folks, real human beings.

Take on the Burnham line and give your business a boost.

Burnham Boiler Corporation

IRVINGTON, NEW YORK

Representatives in all Principal Cities of the United States and Canada

helped any. The air conditioning system in this building was almost a duplicate of the one in the president's home, even to the steam supply, which came from the same source—the college boiler house.

The return connections were on the side of the heaters farthest from the light, so when we flashed a light on them the first thing we saw was the two individual air vents and the group vent above the float trap. Mr. Jamison pointed them out. "There they are."

### A WRONG CONNECTION

"Yes, but unfortunately they are connected to the wrong part of the heater. You will recall that I suggested that the individual vents be connected to the lower tapping of the return header. Well, these are connected to the upper tappings (see Fig. 7, which makes them worse than useless. I'll make another sketch to show you. (Fig. 8.)

"The first steam that enters either section rushes through the upper tubes and closes the vent on the top of the return header. The steam naturally seeks the upper tubes because it is lighter than the air in the tubes and floats on the air like oil on water. The individual vents also draw the steam to them by removing the air quickly. After these vents are closed, the air continues to leave both sections through the group vent until the faster one closes the group vent. Then the air can no longer leave the slower section. The individual vents, you see, are closed before they can do much good because they are located at the top of the return headers, and they do a great deal of harm. If you will compare Figs. 4 and 7 you will notice that when there are no individual vents (Fig. 4) the steam has much less tendency to flow through the upper tubes first, with the result that all of the tubes of the slower section heat part way and probably none of them will heat fully. On the other hand, you will notice in Fig. 7 that the vents draw the steam across the upper tubes first, heating them fully, while the air which is left in the slower section is only in the lower tubes. In either case we get air binding, but without the individual vents the right or left side is cool, while with the vents located at the top of the return header the upper tops are hot, while the lower ones are cold.

"At first thought this does not seem important. But if you think for a minute you will see that it really is quite important. When a tube is heated it expands. To be sure, it expands only a small part of an inch, but when the upper tubes are heated and expand and the lower ones are cooler and therefore expand less, a strain is set up. The hot tubes want to expand and pull the cool ones, and vice versa. If this happened only a few times, no harm would be done, but when it happens repeatedly, it is bound to cause trouble, for something must give. In this installation these strains occur every time the thermostat calls for heat, which may occur several times each hour. The heaters in this installation have been abused because of improper venting and I am not surprised that they have leaked."

### VENTS ARE CHANGED

"I understand your point. In the other job where we do not have individual vents there is only a very slight difference in the expansion and contraction of the various tubes, so we do not have leaks. Here, there is a great difference in expansion and contraction and leaks have occurred."

"Exactly."

"I suppose that the proper thing is to change both of these installations by providing individual vents connected to the bottom of the return header."

"Yes, that is the thing to do, I believe." So we returned to the president's home so that he might approve the changes before Mr. Jamison made them that afternoon.

John and I then proceeded to the really important business of yelling ourselves hoarse at a football game and minded not in the least that Nature's air heaters were not running at all that day.

**The plumbing and heating firm of Biggs & Masser of Jacksonville, Florida, evidently believes in signs as shown in the large billboard which it has erected on the front of the lot adjoining its store and showroom. This firm also maintains a fine oil burner display in a large showwindow in the heart of the city**

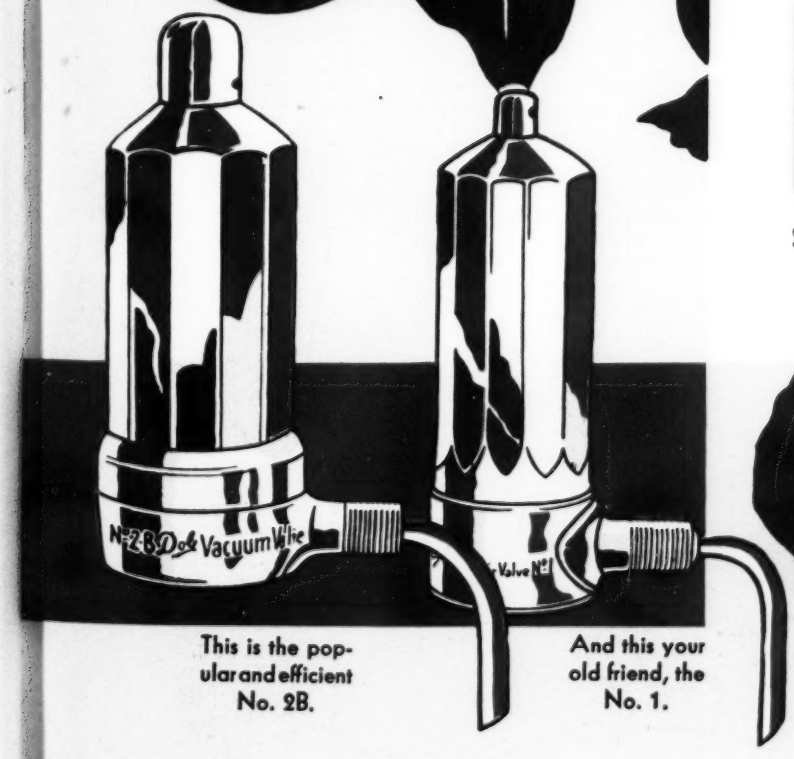
# PICK *the plums*

Reach for the juicy ones. Stand on our shoulders and get the big orders that grow at the top of the tree. Come along with us to the rich markets.

The satisfaction and savings that go with Dole Valve installations — the Dole Syphon Air Valve No. 1 and Dole Vacuum Valve 2B — are being advertised to selected consumers — your biggest prospects. Stock and sell them. The orders will be real plums.

# DOLE

SYPHON AIR AND VACUUM VALVES




This is the popular and efficient No. 2B.

And this your old friend, the No. 1.

OVER→

# DOLE PROVIDES THE LADDER

## TO REACH THE HIGHER PROFITS

***Hospital Market***
**Includes Sanitariums, Infirmaries and Institutions —a total of over 9,000 buildings.**

***Hotel Market***
**Hundreds of medium sized hotels with numerous rooms. They sell comfort to guests. A total of over 3,000 buildings.**

***Real Estate Market***
**Agents operating buildings, apartments, stores, offices for miscellaneous tenants. A total of over 4,000 buyers. (Many thousands of buildings).**

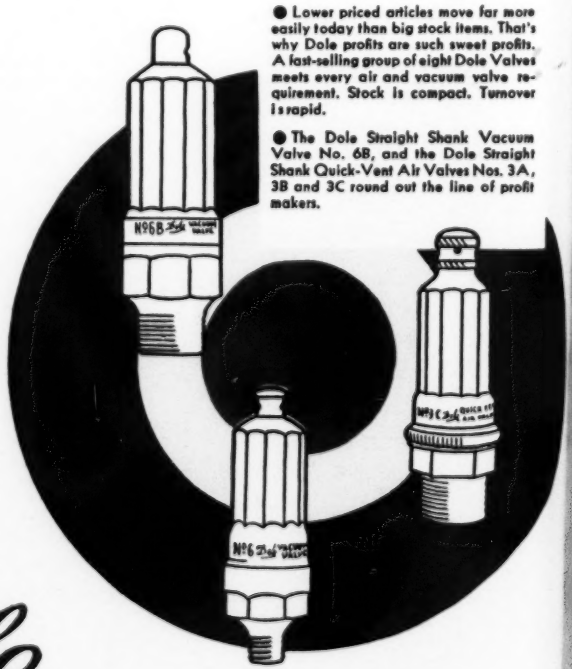
***General Building Market***
**Banks, Churches, Clubs, Asylums, Small Factories, Court Houses, Museums, Colleges, Dormitories. A total of over 27,000 buildings.**

NRA WE DO OUR PART

This year we are helping our customers to get customers. After you have laid in a stock of Dole Valves, you need, we decided something more than our good wishes for your success. It is highly important to us that you discover the real profit we have included in the sales proposition that goes with Dole Valves. They are worthwhile—an item to recommend on every call—for customer satisfaction and your own success.

Our plan to make your profits this year run higher than ever before is simply to *help you sell more valves per order.* Pick the plums. Our campaign is directed to the bigger buyers. Note the list of markets in which the sales story of comfort and economy *is* being told over 100,000 times this season. The markets we suggest are real "plum orchards"—get busy picking.

This story is for you, too, jobbers. More valves per order benefits you as well as the steamfitter. Re-orders come in sooner—Air Valve business moves faster, all along the line.




● Lower priced articles move far more easily today than big stock items. That's why Dole profits are such sweet profits. A fast-selling group of eight Dole Valves meets every air and vacuum valve requirement. Stock is compact. Turnover is rapid.

● The Dole Straight Shank Vacuum Valve No. 6B, and the Dole Straight Shank Quick-Vent Air Valves Nos. 3A, 3B and 3C round out the line of profit makers.

Dole

**THE DOLE VALVE COMPANY**
**1913-33 Carroll Avenue, Chicago, Illinois**

**—OVER**

**P. S. But Don't Overlook the Little Orders.**

# Development and History of Oil Burner Code and Oil Burner Authority

THE Code of Fair Competition for the Oil Burner Industry, now in effect, and the setting up of the Oil Burner Code Authority may be said to have received its official start as early as last May 22 when the president of the American Oil Burner Association wired President Roosevelt pledging the whole-hearted cooperation of the association and the industry in accomplishing the constructive purposes of the National Industrial Recovery Act. Previous even to this formal step, however, the American Oil Burner Association consulted with those who had been enlisted to sell the NRA proposition, these contacts including members of the American Trade Association Executives, members of the United States Chamber of Commerce and one of the co-authors of the act itself.

Thus, when the 10th national convention of the American Oil Burner Association opened in Chicago on June 12, 1933, the executive committee and the directorate were ready to present thorough and workmanlike proposals to the industry embodying the best concurrent thought at that time on the NIRA. But even as admitted by administration executives with respect to their own handling of the proposition, the convention could do no more than make a beginning and rally sentiment to some union of thought with respect to fair trade practices and the like.

With a substantial majority of the industry's manufacturers represented, therefore, an oil burner manufacturers' conference unanimously approved on June 14 an all-industry recovery code and empowered the directorate of the American Oil Burner Association to present the recommended code to the Administrator. This crystalization of opinion, together with similar action by a special conference of dealers, was accomplished almost simultaneously with the NIRA becoming law. On the 16th of June, the day President Roosevelt signed the National Industrial Recovery Act, a telegram confirming the announced action of the association was sent to General Hugh S. Johnson, the administrator. Negotiations with the government on the code, as recommended

**Personnel attending organization meeting of the Code Authority in Washington: Front row, R. S. Bohn, vice chairman; Haldeman Finnie, vice chairman; R. B. Paddock, deputy administrator; Morgan J. Hammers, chairman; L. E. Johnson, vice chairman; Harry F. Tapp, executive secretary-treasurer. Second row, John S. Lord, counsel; R. M. Sherman, W. J. Smith, M. E. Simpson, alternate for W. S. Salway, J. C. Johnson, alternate for H. Phillis, C. Muirhead, alternate for C. U. Williams, and Arthur W. Clark**

# . . . and in 1934

the three complete

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HEATING SPECIALTIES

"APPROVED" BRONZE VALVES

VALVES AND FITTINGS

FOR THE OIL INDUSTRY

. . . . will again dominate their respective fields.

NRA MEMBER U.S. WE DO OUR PART

"MILWAUKEE" lines are sold exclusively through recognized, representative jobbers. There are stocks available for your convenience in all large cities.

DISTRICT OFFICES IN 25 PRINCIPAL CITIES

MILWAUKEE VALVE CO.

MILWAUKEE WISCONSIN


by the conference, began with a preliminary hearing in Washington on June 19 and the first draft of the code was formally filed on June 21.

This code, in addition to establishing minimum wages and maximum hours, contained in it individual minimum prices, any sales below which would be considered as unfair competition. Subsequently, and after further conferences in Washington at the Administrator's offices, a revised code was presented on July 10. This code, in line with thought developed by the various informal conferences in Washington, ultimately removed fixed minimum prices at wholesale and retail and substituted in lieu thereof cost formulae. This revised code was considered as satisfactory for public hearing and a hearing was called for August 21.

To give all groups in the industry a final opportunity to learn of the letter and purposes of the proposed Code and to raise any issues on which there was conflicting opinion, the American Oil Burner Association conducted an open forum in Washington on August 19 to which all interested parties were invited. With a general consensus obtained as a result of this meeting, industry representatives appeared at the hearing on August 21 which was held before Deputy Administrator R. B. Paddock and which was continued into the following day, August 22.

In the intervening period between the close of the hearings on August 22 and the approval of the Code by President Roosevelt on September 18, continuous conferences were held by executives of the American Oil Burner Association with administration executives, and there grew out of these caucuses a model code, the pattern of which has been followed by many another business group seeking approval of codification plans.

The final draft of the Code, which established an Oil Burner Code Authority as an administrative corporation, was designed to accomplish generally the following four things:

1. Give the industry an opportunity to rehabilitate and stabilize itself through self-government by establishing uniform cost accounting and by declaring for a series of mandatory fair trade practices.
2. Eliminate cut-throat competition by setting up a mandatory open price plan which not only outlaws the practice of selling below cost and below quoted prices but which provides for an interchange of filed prices between all competitive groups.
3. Fix wages and hours at levels to bring about a maximum of purchasing power.
4. Regulate all units of the industry through a central headquarters organization by virtue of making the code a vertical code.

President Roosevelt signed the code on September 18 and it was effective five days later, September 23. The Code Authority, using the small available staff of the A. O. B. A., immediately undertook to apprise more than 18,000 units of the industry what would be required of them under the Code.

### THE OIL BURNER CODE AUTHORITY

The Code Authority was appointed on September 28 by the Administrator, as follows, in accordance with the provisions of the Code: (Representing members of the Executive Committee of the A. O. B. A.) Morgan J.

Hammers, Haldeman Finnie, R. M. Sherman, W. J. Smith, W. S. Salway; (Representing the Distillate Burner Manufacturers Association) L. E. Johnson, nominee of the president of the D. B. M. A.; (Representing the Pacific Coast Oil Burner Association) J. C. Johnson, alternate for H. Phillis, president of the P. O. B. A.; (Representing no association interest) C. Muirhead as alternate for C. U. Williams; (Representing the Dealer Division of the A. O. B. A.) R. S. Bohn. The three non-voting members to be appointed by the Administrator were not named at that time. Immediately following the appointment of the foregoing, the Oil Burner Code Authority held its first organization meeting and elected the following officers: Mr. Hammers, chairman, Haldeman Finnie, vice chairman, L. E. Johnson, vice chairman, R. S. Bohn, vice chairman, and Harry E. Tapp, executive secretary. John S. Lord was appointed as counsel.

Subsequently the following appointments were made by the Administrator to complete the executive personnel of the Code Authority as required by the Code: Major R. B. Paddock, representing the Administration; Professor L. E. Seeley of Yale University, serving as technical consultant and H. W. Sweatt of the Minneapolis-Honeywell Regulator Company, serving as Industrial Consultant.

A standing committee on Class 4 (distillate) burners was appointed by the Code Authority as follows: L. E. Johnson, D. B. M. A. member of the Code Authority as chairman; H. H. Morse, secretary and director of the D. B. M. A., and Harry Goldstein, president, Independent Range Burner Manufacturers Association.

## 10 Suggestions to Dealers for Tying-In Locally with the Code

1. Read carefully the Code of Fair Competition for the Oil Burner Industry, especially Paragraph V, which relates to selling costs and the filing of selling prices, and the industry regulations, Paragraph VI, of the code. (These paragraphs can be found on Pages 65 and 66 in the November (1933) issue of DOMESTIC ENGINEERING.)

2. If any part of the operation of the code is not clear, consult the officers of the local association in the sales territory in which you are located. In the absence of such an association, write the Dealer Division, Oil Burner Code Authority, Inc., 342 Madison Avenue, New York City. Bulletins will be sent promptly answering all inquiries.

3. If you are engaged in the sale of oil burners in a territory where a state or local association exists, get acquainted with the officers of this association and attend the meetings of the association, to get the latest interpretations and information from Code Authority headquarters. Write the Code Authority if you do not know the place, date and time of meetings of associations in your territory.

4. If you are located in a sales area where no local association exists, and you feel the Code Authority can get together at least ten active oil burner distributors, dealers or factory branch managers from a radius of not over twenty-five miles for the purpose of organizing a local association, write the Dealer Division, Oil Burner Code Authority, and information will be furnished to assist in completing an organization. If the location and date of the meeting is reasonable to the itinerary of a Code Authority Field Representative, an experienced organization field man will be sent to assist you to complete the organization.

5. Remember that it takes time to organize a nation-wide program of this character. Violations of the code are no doubt occurring in your area. You can do much to advance compliance by making sure that you are not, perhaps, inadvertently in violation of the code yourself.

6. The program of the Code Authority includes the dividing of the United States into many sales areas. Each city area contains that territory generally covered by a majority of the competitive retail outlets. Rural areas are much larger. Each area will be represented by five area governors, appointed by the Code Authority on recommendation of the state or local association or from active distributors, dealers or factory branch managers selling power burners in areas where no association exists. If you are interested in cooperating in your area, consult the President of the local association in your area, or if none exists, write the Dealer Division, Code Authority, Inc., for information.

7. Announcement will be made promptly in the trade publications of the industry of the names and locations of all area governors. Get acquainted with these governors and report violations to them and generally cooperate to obtain voluntary and reasonable compliance with the code. You will be surprised how much the industry can be improved if there is genuine cooperation.

8. File your installed selling prices with the Code Authority promptly if you have not previously done so. The code does not exempt any unit of the industry, regardless of the number of burners sold or the size of the territory where they are sold. If you sell oil burners, you come under the Oil Burner Code, regardless of other codes you may be working under.

9. The Cost Accounting System now being prepared by Ernst & Ernst will be an effective instrument in improving many of the objectionable features of the industry's present selling system. Do not condemn hastily the value of the cost provisions of the code until a reasonable yardstick is provided that will permit the Code Authority to measure this condition accurately.

10. Finally, your earnest cooperation is urged in allowing the code to prove its real value. This requires your voluntary, reasonable compliance, and your willingness to assist the Code Authority in your territory to guide the actions of your fellow dealers who may not understand the operation of the code correctly. Give the Oil Burner Code Authority this cooperation, and the code will do an effective job for the industry.

With the approval of the Administrator, the Code Authority leased space adjoining the American Oil Burner Association in the Canadian Pacific Building at 342 Madison Avenue, New York City. Incorporated under the laws of the state of New York, the Oil Burner Code Authority quickly developed a complete organization which now numbers thirty-three persons including two field representatives and an appointee chosen particularly to serve the interests of the distillate division of the industry.

Shortly after the Code Authority became operative it was apparent that the distillate division, because of the great numbers of outlets included in it, would require full-time service of an agent who, working from Code Authority headquarters, could go out into the field when the occasion required and who could assist the Code Authority at headquarters in organizing this division of the industry so that it would receive the maximum benefit from administration of the Code. Charles Ott, formerly of Fuel Oil Journal, was selected at a special code meeting in Hartford on November 22 to do this job as a representative of the Code Authority.

During December the Oil Burner Code Authority held 22 local meetings to inaugurate the decentralization program for the administration of the oil burner code, twelve of these being held in the east and ten in the central west. This marks the beginning of a series of meetings, approximately 100 of which will be held, to organize the country into 462 administrative areas supervised by groups of five local governors in each competitive territory.

## Monitor Utilities Corp. Appoints Several Representatives

Monitor Utilities Corporation of Long Island City, N. Y., has recently appointed the following representatives to cover the territories indicated:

Edward L. Post, Jr., to cover Hudson Valley on both sides of the river between Albany and New York.

W. T. Walz to cover Staten Island, N. Y., Monmouth, Middlesex, Mercer and Ocean counties.

S. Lapidus, the following counties in Southern New Jersey: Burlington, Atlantic, Cape May, Cumberland, Salem, Gloucester, and Camden.

Reuben H. Taylor, the following counties in Northern New Jersey: Morris, Union, Passaic, Bergen and Essex.

## Mellon Institute Reports Progress in Heating Research

The Multiple Industrial Fellowship on Heating in the Mellon Institutte of Industrial Research at Pittsburgh, Pa., sustained by the National Radiator Corporation of Johnstown, Pa., since 1929, is continuing a number of investigations of interest to heating specialists as well as users of heating equipment. The present incumbents of this fellowship, Dr. J. L. Young and A. C. Jephson, have lately given much attention to certain problems in air conditioning and to the development of new products. A thorough investigation has also been made of the suitability of ferrous and non-ferrous metals for the construction of finned convectors and other heating units.


***A New Development in Steam Heating—Thousands of Legitimate Prospects—THE VACUUM BOILER RETURN TRAP***

**Operates on the same principle as the present boiler return trap.**

**Except, that it creates a vacuum on the end of the returns.**

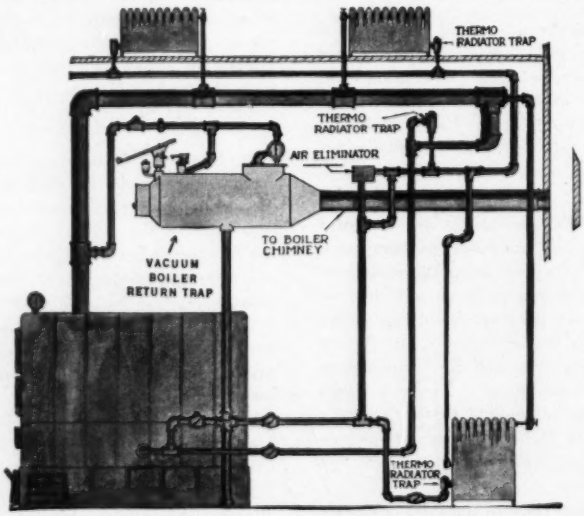
**Pulls the water and air from the job to that point.**

**Exhausts the air to the atmosphere and delivers the water into the boiler.**

**Makes water run up hill, which means 100 percent circulation on every job.**

**Overcomes trapped pipes, friction and all of the conditions that contribute to poor circulation.**

**Transforms the one or two pipe, or air line, job into a high class vacuum system, at a moderate cost.**




**Many heating contractors throughout the country are taking a new profit of $40.00 and up correcting faulty one or two pipe jobs by installing the Vacuum Boiler Return Trap.**

**Why not take advantage of this opportunity for yourself?**

**There are surely plenty of defective jobs right in your own city where the Vacuum Boiler Return Trap could be sold to the satisfaction and advantage of the owner and a profit for yourself.**

**D. & T. MANUFACTURING CO.**

**3001-3009 La Salle St., St. Louis, Mo.**

***Manufacturers of a complete line of Tank-in-Basement Equipment for hot water heating.***

# Automatic Heat and Air Conditioning Questions

### Controls for Two Boilers

To the Editor:

There are two boilers in a certain residence. These are connected to a vacuum vapor system with not exceeding 3 lb. pressure. There is a large amount of radiation in the residence and in cold weather it has been necessary to operate both boilers using coal as fuel. However, since one boiler has been adapted for oil burning, it has been possible to carry the heat load and keep the other boiler and oil burner in reserve.

There is a steam pump, which may operate on float or pressure, handling the return to the boiler and in view of the large amount of radiation in the system, new water from the city mains is frequently injected into the boiler to make up for a deficiency due to excess radiation. When this occurs, of course, the temperature of the water in the boiler is considerably lowered and it evidently results in heat losses, excess water eventually discharges to the sewer, etc.

We are anxious to know how to remedy this condition and provide enough water in the boiler so that with the exception of emergency cases, cold water will not be injected into the boiler. We are advised that one of these type boilers contains 2,443 lb. of water to the water line, or approximately 295 gallons. If you have any suggestions to offer, we would certainly be pleased to hear from you. W. H. R.

Minnesota.

To the Reader:

You do not give us any information on the ratings of your boiler or the amount of radiation installed. Neither are we advised of the piping arrangement involved, or other specific features of your system. Accordingly, we can only answer in a general way and indicate how your system may be corrected.

It is obvious that the one boiler which you say is now handling the entire heating load even in most extreme weather, is being operated at an overload. This is possible with oil heat, while it might not have occurred when firing with coal because of the nature of oil heating equipment. Automatic mechanical methods of firing either with stokers, gas burners, or oil burners are capable of producing overloads. On this basis, one remedy which suggests itself is that you operate the heating system as it was intended when it was hand-fired with coal. That is, in severe weather, operate both boilers with their oil burners.

Another solution to your difficulty is that of substituting a low water cutout for the boiler water feeder which you now have installed. With the use of a low water cutout, the boiler would be fully protected because in the event of a dangerously low water line, the burner would be turned off. This low water cutout might be connected so as to start the second oil burner when it cuts out the oil burner serving the first boiler. We have not seen this actually done on installations, but there is no reason for it not being practical. The connection should be made so that the second oil burner will not be cut out by the first oil burner's low water cutout. In other words, when the water line of the first boiler comes back to normal, its low water cutout will start the oil burner again. Then both oil burners should operate until the room temperature control indicates that the heated space is warm enough. This should be connected so as to then turn off both oil burners. A low water condition in the first boiler then would be necessary again in order to start the second burner. This arrangement would guard against the second oil burner being turned on and off by an unsteady water line in the first boiler.

Before making these changes, a careful analysis of your heating equipment and its controls should be made. In addition, the equipment you select should be investigated to determine if it is suited to this specialized application and double service.

With this arrangement, the water feeder should be set to operate at a point below the low water cutout.

### Heat Transfer for Canvas Duck

To the Editor:

You have invited questions from your subscribers, therefore, I am asking you to tell us, if possible, the rate of heat transmission through standard canvas duck per square foot per degree difference in temperature.

We have a customer who wishes to block off a space in an unheated warehouse approximately 60 ft. by 24 ft. and we want to be able to figure the heat losses through the temporary canvas walls. S. C. H.

Rockford, Ill.

To the Reader:

We referred your inquiry to Professor Peebles, of Armour Institute of Technology, whose investigations in heat transmission are widely used along with those of the Bureau of Standards at Washington, D. C., and other authorities. He tells us that some years ago he carried on tests with canvas duck to determine its coefficient of heat transmission. He did not have the results of his tests before him at the moment we talked to

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GALLON PER HOUR
UP TO EIGHT
GALLONS PER HOUR IS THE
RANGE OF THE WAYNE S-4 ●
●WHY carry a big floor stock of various sizes of burners when the Wayne Universal Model S-4 will take care of any domestic boiler, furnace or heating plant in your territory? It eliminates all other sizes. It cuts down your investment in display stock and permits you to concentrate your effort in doing a real job selling just one burner. It burns lowest price oil. Write today for bulletin and details of the Wayne Plan.
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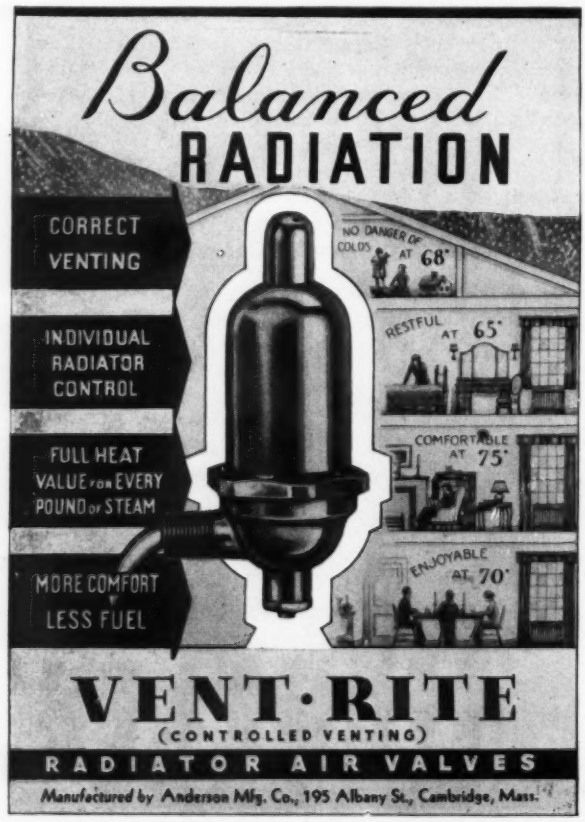


him. However, he stated that for all practical purposes it may be considered that canvas duck from $\frac{1}{32}$ in. to $\frac{1}{16}$ in. thick, in quiet air, permits a heat loss of from 1 to 1½ Btu. per hour per square foot per degree temperature difference.

Since you plan to use canvas duck in blocking off a square in an unheated warehouse, this figure should hold for your calculations because obviously, it will be in still air. If this were outside and subject to variations in wind velocity and direction, this figure could not be used.

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## Third International Heating Exposition Promises to Be a Success

The Third International Heating and Ventilating Exposition, which is to be held in Grand Central Palace in New York City, February 5 to 9, 1934, is well along with its program and layout. According to the International Exposition Company which, as in the past, will manage the event, the contracts for space indicate an exposition not only extensive in scope of exhibits and number of exhibitors, but well balanced with regard to its major industrial sections. Principal among these are gas burning equipment, oil burners, warm air heating, steam heating, electric heating, refrigeration, air-conditioning, hydraulic accessories, thermal insulation, and instruments of precision. Instruments include those which indicate control or record the temperature, pressure, volume, time, flow, draft, or other functions to be measured.

### NEW HEATING PRODUCTS

New and improved heating products for the home will be featured by a manufacturer of boilers and accessory equipment. Some of the water-heating installations are particularly adapted for all year round operation; some of these are connected with an oil-fired installation. The relief from furnace-tending, and uncertain temperatures, is emphasized by manufacturers of gas-heating equipment, while the producers of modern heating units using coal and coke, will demonstrate modern stoking and combustion control. Every type of fuel will be emphasized in connection with the newest developments in equipment for its combustion. Since there are many conditions affecting the individual decisions as to heating, the Exposition will provide a comprehensive market-place in which the domestic or industrial purchaser can make comparisons and arrive at a definite conclusion as to which type of heating unit and which type of fuel he should use.

Human hair elements are used to provide extreme sensitivity and accuracy in some of the air-conditioning control instruments which will be featured. One company, builders of weather instruments for the past fifty-seven years, will exhibit a complete range of automatic controls, indicators, and recording instruments for air-conditioning in both the industrial and domestic fields. Notable among these will be the humidistats and "comfortrols" using strands of human hair as the sensitive recording element. As a background for these instruments, are a number of other types. In addition to complete assemblies for air-conditioning, there will be thermostats, humidity indicators, solenoid valves, damper

motors, motor operated valves, relays, hygro-thermographs, barographs, also sling and aspirating psychrometers.

Engineering research, with resultant contributions to good health, will be reflected in air-conditioning equipment, featured by one of the country's largest manufacturers of electric refrigerators. Very soon after their refrigerating units came into use for air-conditioning, the discovery was made that an atmosphere tempered by refrigeration, affords relief to sufferers from various disorders. Some of the early owners learned this by experience. Conspicuous among the first beneficiaries were victims of hayfever. Some found that their symptoms quickly subsided in an air-conditioned atmosphere. The relief continued not only while they remained in that atmosphere, but for some time afterwards, in most cases. Similar results were experienced by those who suffered irritations of the mucous and optical membranes, through other causes. Air-conditioning is indicated as an aid in the treatment of these afflictions, but is not to be construed as a cure.

Home-owners, contractors, and architects, will be interested by an exhibit featuring oil furnaces and air-conditioning plants. This equipment provides for heating, cleaning, cooling, and humidification of the air in rooms and offices, throughout the year, and in any climate.

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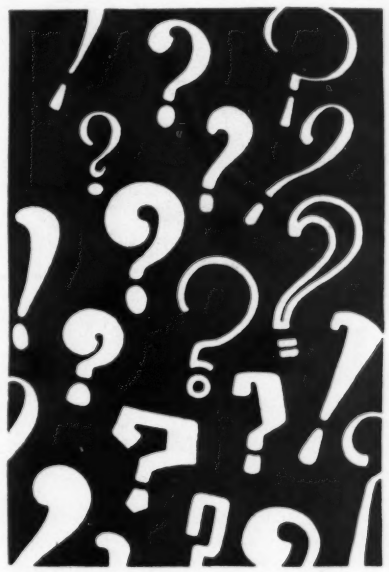
### E. V. Walsh Elected Vice President of Timken

E. V. Walsh

E. V. Walsh, general sales manager of the Timken Silent Automatic Company, Detroit, Mich., has just been elected vice president in charge of sales and advertising of this concern. This promotion came to Mr. Walsh in recogntion of his sales record during the time he has led the sales department. Mr. Walsh will continue to perform the duties of general sales manager but his new office will give him closer contact with the directors and the executive staff of the company. After a long selling and sales executive experience in the office appliance field Mr. Walsh took charge of the Timken Silent Automatic Company's branch in Detroit in January, 1926. Two years later he became sales manager, in charge of the three branches operated by the company at that time. Under his leadership the three branches have increased in six years to sixteen, with twelve additional sub-branches. The force of 40 retail salesmen in 1928 has increased to more than 600 in 1933. During this period, also, distribution has been developed through independent dealers. Today more than 225 such organizations are affiliated with Timken Silent Automatic Company, with more than 300 additional salesmen in their employ.



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QUESTIONS

Every day brings its questions about different motor applications to Pumps, Compressors, Air Conditioning Equipment, Stokers, Oil Burners, Refrigerators and other types of equipment where unfailing motor drive is essential . . . Invariably you'll find the answers in Century Motors . . . If you need special assistance you'll get it from Century Engineers — backed by 30 years of knowing how to build motors. • •

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MOTORS

Interesting reading, mates—the chronological log of the good ship Leland; particularly interesting to manufacturers of automatic stokers.

1921—a line of motors capable of breaking loose heavy starting loads, of resisting temporarily stalled loads and handling temporarily severe overloads without injury.

1925—development of a high efficiency motor design with extra heavy shaft through core and bearings; also in 1925 a cushioned base to reduce motor noise and transmitted vibration.

1933—a resilient flange mounting to more completely isolate noise and vibration—reduce both to the near vanishing point and make this design THE MOTOR FOR STOKER DRIVE.

Also in 1933, correction with this resilient mounting of the tendency common in such specially mounted motors for the shaft to throw out of line due to thrust influences.

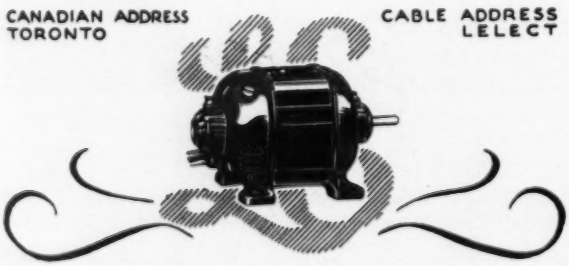
Also in 1933, totally enclosed frames for protection against ashes and dirt, fan cooling for use in special cases, and a line of geared head motors.

Any Leland motor for examination at your convenience.

The Leland Electric Co.
Dayton · Ohio · U·S·A

CANADIAN ADDRESS TORONTO

CABLE ADDRESS LELECT



### Booklet on Chromium Steels

The Central Alloy Division of Republic Steel Corporation of Massillon, Ohio, has issued a booklet containing a large fund of information about chromium steels. These steels, the booklet states, possess resistance to corrosion, acid attack and scaling at elevated temperatures sufficient to render them well adapted to a number of applications. They can be rolled, formed, drawn, forged, welded or riveted into almost any shape desired, if certain precautions are observed during handling. They are available in the usual forms, such as sheets, plates, hot and cold rolled strip, bars, etc.

### De Luxe Booklet on Oil Burner Campaign

Wayne Oil Burner Corporation of Fort Wayne, Ind., has just issued a de luxe booklet as part of its oil burner campaign, which began December 1. This booklet consists of 28 pages, 8½ x 11 in. in size, filled with oil burner selling talk intended to be used by the salesman to close an order. Every page is strikingly illustrated with high-grade halftone engravings. The campaign itself embodies the elements of fear, health, comfort and convenience, and economy in the form of money saving, and the illustrations in this booklet emphasize these points.

### Folder on Triple-Purpose Boiler Units

The Heater Division of Motor Wheel Corporation of Lansing, Mich., has just issued a folder, "A New Development on the Heating Horizon," which describes a series of boiler units, constituting a triple-purpose line, and includes models for domestic steam heating, domestic hot water heating, and commercial hot water supply. As pointed out in the folder, these boilers are complete in themselves with the burner matched and balanced to the entire unit by the manufacturers. Operation is entirely automatic and the steel burner and a special vertical flue construction in the boiler are pointed out as resulting in fast and efficient service. Performance data and specifications are also given in the folder.

### Bulletin Announces New Low Water Cutoff

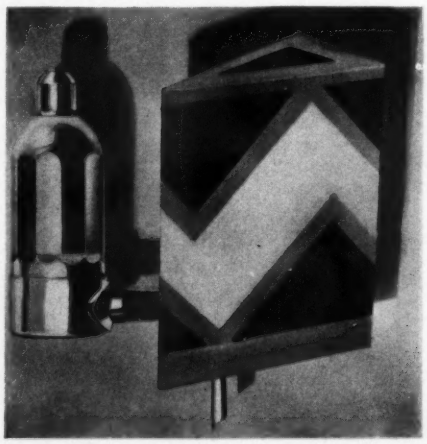
Minneapolis-Honeywell Regulator Company of Minneapolis, Minn., has issued a bulletin announcing a new and improved low water cutoff designed to prevent the operation of automatic steam or vapor heating systems in the event that the water supply falls below the level necessary for safe operation. The bulletin describes the operation of this device as follows: "When the water level in the boiler falls too low, the low water cutoff automatically shuts off the fuel supply, preventing the system from operating until the water level has been restored. The low water cutoff is mounted directly on the gauge glass tappings, and is actuated by a float controlled by the water level."

# Products FOR Dealers

*This section gives a report of the latest news of selected automatic heat and air conditioning products. The general new products section starts on page eighty-five.*

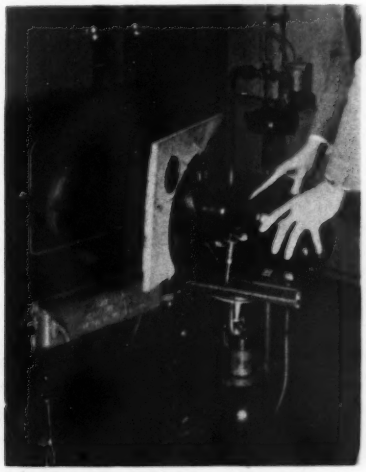
### A New Vacuum Valve

Here is a new vacuum valve which has just recently been placed on the market. It is designed so that when air has been eliminated from the heating system, the steam entering the valve causes the thermostatic liquid in the float to become a gas. This expanding gas which is hermetically sealed within the float, buils up a pressure which springs the diaphragm from a concave shape to a convex shape. This, in turn, causes the seating pin to close the vent hole, and thus prevent the escape of steam or water from the radiator. In addition, it also prevents air from re-entering the radiator. As the steam pressure decreases, a partial vacuum forms within the system as well as within the radiator and the valve. However, there is no change in pressure within the bellows because this is independently vented by an air tube beyond the closed valve seat. Within the bellows the air is always at atmospheric pressure. This, coupled with the condition of a partial vacuum in the valve itself, means a differential of pressures which causes the bellows to expand, thus holding the vent holes sealed tightly against the outside air striving to re-enter the radiator and the heating system through the valve ports. These valves appear in an attractive triangular package as indicated in the accompanying illustration. These packages are printed in green and black on a white stock. Twelve of these individual packages are placed like segments of a cake in a cylindrical container. The Dole Valve Company, located at 1913 Carroll Avenue, Chicago, is the manufacturer.



### A Variable Flame Oil Burner

The chief feature which is listed for this oil burner, just recently placed on the market, is the variable flame, which is designed to burn continuously. The idea of this is stated as being to provide a close temperature control with a minimum of fluctuation. The burner is mounted on a swinging pedestal and is made to be installed without any alterations in the boiler. Although the flame in this oil burner is made so as to always burn when any heat is needed, the size of the flame is regulated by the flow of oil which is mechanically adjusted to the exact amount of heat wanted. This unit uses a non-electric hydrostatic control. A container carrying a fairly large quantity of a liquid which expands and contracts in accordance with the amount of heat present



is mounted in a room usually on the first floor of the dwelling in the place usually occupied by the thermostat. As the temperature of the room increases, the liquid in the container expands. Leading from the container down to the oil valve is a small capillary tube, fastened to a bellows which expands and contracts with the expansion and contraction of the liquid in the container. Briefly, the cycle of operation is as follows: An increase in the temperature of the room expands the

A ½-Inch D. P. 22 Valve

The Kitson Valve is designed and constructed in accordance with A. S. M. E. Code Specifications.

*"Here's a Necessary, Efficient and Easily Sold Valve"*

The KITSON
Diaphragm
PRESSURE RELIEF VALVE

This neat, mechanically correct, non-corrosive little VALVE actually MAINTAINS A "SAFE" WORKING PRESSURE in:

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The Kitson Diaphragm Pressure Relief Valve "automatically releases" any increase in water volume, due to expansion under closed heating conditions. SEND FOR LITERATURE.

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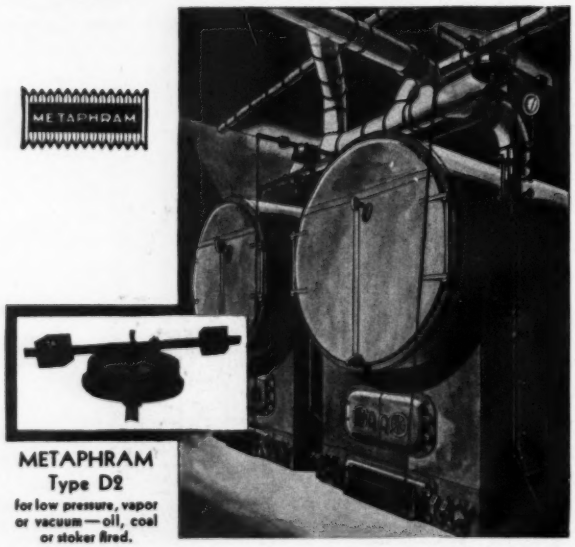


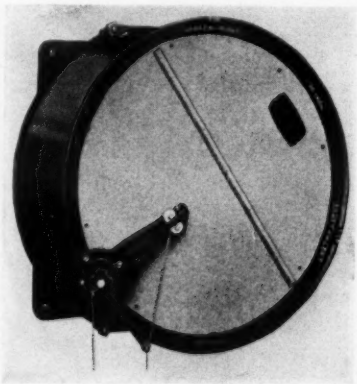

METAPHRAM
Type D2
for low pressure, vapor or vacuum—oil, coal or stoker fired.

METAPHRAM Gradual Control
covers the entire range of domestic hot water and low pressure boilers and tank heaters, either gas, oil or coal fired.

Descriptive Bulletins on Request

NATIONAL REGULATOR CO.
2317 KNOX AVENUE CHICAGO


liquid in the temperature control. This liquid in turn, expands the bellows mentioned in the foregoing which in turn, pushes in on the oil needle valve, thereby cutting down the flow of oil to the burner. The user can obtain the desired temperature in his home by adjusting a screw which operates on the temperature control. The control is made so as to react to 1/6 of a degree change in temperature, varying the flow of oil to the burner accordingly. A device for supplying the exact amount of air required for each quantity of oil being burned also is included in this unit. As the temperature control releases more oil or constricts the oil flow in accordance with the heat demand in the home, the oil, before going to the burner passes through a metering device which raises or lowers an air gate, thereby increasing or decreasing the amount of the air supply in exact ratio to the amount of oil being fed to the burner. A 1/20 H. P. motor is used in this burner. The boiler grates and interior of the fire box remain unchanged for the installation of this equipment. One item listed as being favorable to this equipment is that by making it possible to swing the burner in and out of the boiler, the home owner is permitted to use his boiler as an incinerator when the burner is swung out. This equipment also is featured as being suited to the purpose of renters in that it may be removed easily when the renter moves. Kelvinator Corporation, of Detroit, Mich., is the manufacturer.

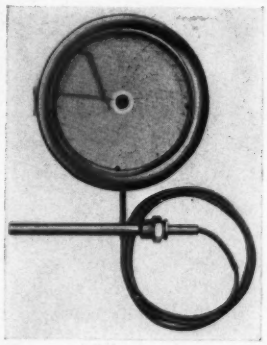


### A Commercial Draft Control

Here is a commercial and industrial type of draft control which just recently has been developed for use in large institutions such as manufacturing plants, hotels, and churches. It is balanced to control automatically the stack or chimney draft. This device is set in a properly constructed opening in the flue risers, smoke breeching or in the base of the stack. It is designed to work equally well on heating plants burning coal, coke, oil or gas. Once set, it functions to maintain a permanent adjustment requiring no further attention. The balanced flutter of this draft control automatically swings inward under the forces of excessive draft and with this operation it checks the draft, thus allowing only the correct predetermined amount of air to pass into the combustion chamber. The Hotstream Heater Co., 8007 Grand Ave., Cleveland, Ohio, is the manufacturer.

### Recording Thermometer For Industrial Application

Here is a recording thermometer which has been made suitable for general industrial applications. It is made in two general types, one of which is gas filled while the other is a vapor tension instrument. The gas filled instrument is listed as suitable for all temperature applications up to 1000 deg. Fahr. or equivalent Centigrade. A variety of chart ranges are available which are suitable for different temperature requirements such as oven temperatures, flue gas, steam, feed water, hot and cold water, vat temperatures, and inside and outside atmospheric temperatures. The most popular size is the one using the 8-in. chart. This is mounted in a black enamel finish, dust proof, and moisture proof case and comes with a flanged back for wall mounting. However,



these thermometers are available in a variety of designs and finishes of surface. The vapor tension instrument is suitable for application to steam and hot water temperatures where the operating range is not more than 30 percent of the total scale range. This instrument is fitted with an increasing scale chart in which the graduations for a given temperature change increase in distance as the temperature rises. Both types of recording thermometers can be made to special order in two- or three-pen construction. The gas filled instrument can be made in two-pen construction in which one pen operates on temperature and the other pen on pressure where the pressure and temperature ranges are approximately the same. The manufacturer is Jas. P. Marsh Corporation, 2073 Southport Ave., Chicago, Ill.

### A New Line of Humidity Controls Introduced

Built in various models providing for different electrical circuits and available with or without relative humidity indicators, a new line of humidity controls has been introduced in units suited to domestic or small commercial installations. They are actuated by a hygroscopic element composed of multiple groups of human hair. A simple lever mechanism transmits the motion of the expanding and contracting element to a mercury switch which, in turn, operates the humidifying or dehumidifying equipment. Ample electrical capacity has been made available for the direct control of line voltage solenoid water valves or small motors. With other cir-

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QUALITY WATER HEATERS
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LOW COST
Summer and Winter
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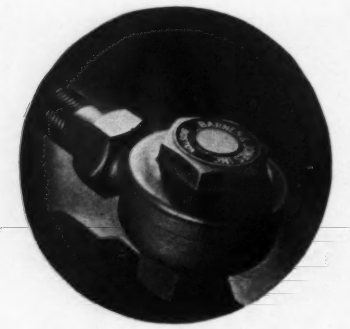

# Do Traps and Valves give you Nightmares?

FOR your protection, *each* Barnes & Jones trap (and we mean *each*) is tested under actual operating conditions before leaving the factory. . . . B&J equipment is built to go on a job and stay there . . . you don't have to spend your profits servicing it after installation. Two new bulletins that will fit your files or ring binders, describe the new B&J trap and valves. Write for them today.

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HI-TEMP
ONE PIECE WATER COIL

**REAL PROFITS for AUTOMATIC HEAT DEALERS**

*Greater hot water supply*
*Faster flow*
*Longer life*
*Most economical*

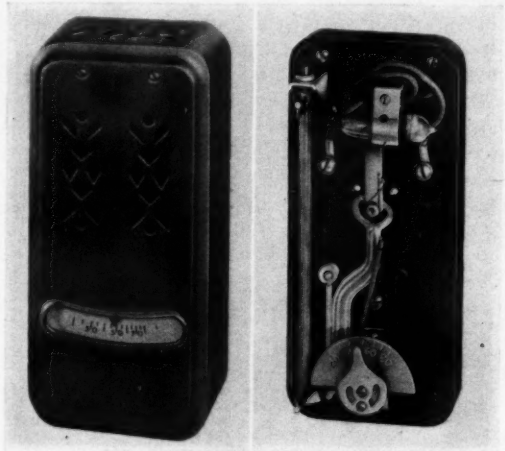
These are the features of the HI-TEMP Hot Water Coil that are most interesting to your customers. These are the features that enable you to sell the HI-TEMP almost on sight.

Save money for your customers. Build up more business for yourself. Install HI-TEMP in conjunction with instantaneous storage heaters which will save customers as much as seven months gas bill, because as long as there is a furnace fire, there is abundant hot water supply without the use of gas.

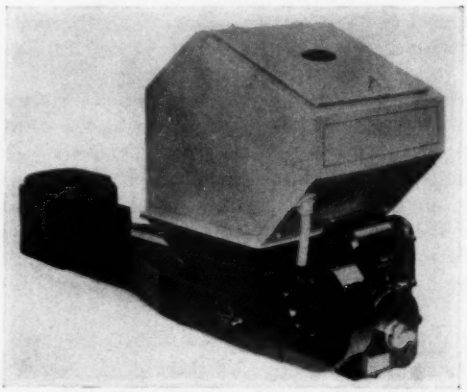
Write for literature and prices. Also, territory open for representatives.

**PRODUCTION PLATING WORKS, INC.**
LEBANON, OHIO

cuit arrangements, motorized valves may be controlled, or when using the humidity control as a pilot control of a magnetic starter, larger loads may be controlled, limited only by the load rating of the starter. Models are available with indicators built in their covers to show the relative humidity in the room. Although constructed



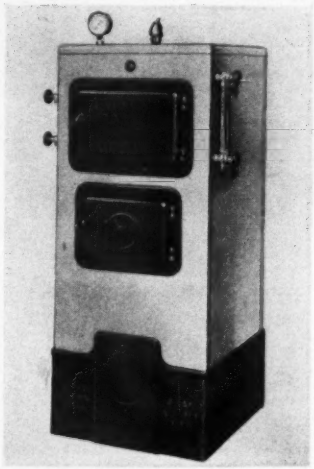
for setting over a range of 20 percent to 80 percent relative humidity, the setting pointer is internal and is not subject to tampering. The covers enclosing the control mechanism are of the lock type requiring a special key to provide access. These humidity controls, under conditions of normal rate of increase or decrease in relative humidity, are designed to control within a total variation (differential) of 2 percent. Minneapolis-Honeywell Regulator Co., of Minneapolis, Minn., is the manufacturer.



### A Stoker For Homes

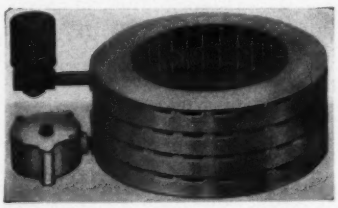
The accompanying illustration shows a stoker which just recently has been placed on the market for homes. It has a coal hopper of 500 lb. capacity. The height has been determined to make the fueling of the unit easy. The cover is sealed with rubber while the hinges and lock handle are chromium-plated. A suction tube is included to remove any gases or dust by suction which is produced through the operation of the fan. The gear

drive box is made to be simple in design. The worm shaft is mounted on ball bearings. All of the wearing parts are hardened and ground while the mechanism is hermetically sealed against oil leakage, dust, dirt, moisture or fumes. The coal feed regulator has been made to be easily changed while the stoker is operating. There are four different feed regulations, as well as a neutral position. Safety devices include a safety shear pin which has been made easily accessible. A secondary protection consists of an overload switch which cuts out the motor in case of an overload. The electric motor has drip-proof end covers. The bearings are waste-packed. The retort, or fire pot is built of a special heat-resisting iron and is designed for efficient combustion. The Frederick Iron and Steel Co. located at Frederick, Maryland, is the manufacturer.



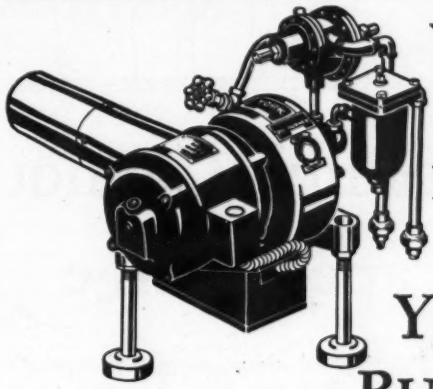
**Boiler Designed for Burning Oil**

This boiler has been designed to work efficiently with any standard make of oil burner. It is exclusively an oil burning boiler. It can be used in connection with steam, hot water or vapor systems. A special tapping permits the connection of an external water heater. A duplicate set of three flues is provided to assure maximum heat absorption. Insulation is included to cut down both heat losses and noise. An enamel jacket encases the unit. National Radiator Corporation with general offices at Johnstown, Pennnsylvania, is the maker.



**A Humidifier and A Flexible Header**

The accompanying illustration shows a humidifier which is installed in the smoke pipe of a boiler. The waste heat going up the chimney causes the evapora-

YOU should handle the YORK BURNER

In spite of rising prices York still offers a splendid automatic, complete high pressure burner with electric ignition and controls for less than a hundred dollars. This machine has sufficient capacity to handle eighty per cent of installations.

It comes as a result of our fourteen years in domestic oil burner building, since 1897 in the industrial field, a guaranteed product made by the oldest and largest builder of domestic high pressure burners.

This is only one of the outstanding models York offers. There are burners of every type, industrial and domestic, a complete line of horizontal rotary heavy oil burners, burner boiler combinations. In short you need lose no sales in handling the York complete line.

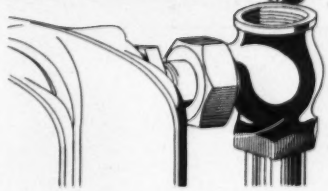
It will pay you to deal with one responsible company, to receive one guarantee from one company instead of dealing with many. It will pay you to learn all about the York line. We will be pleased to send information or have an engineer call and tell you about York equipment.

YORK OIL BURNER COMPANY, Inc.
YORK, PA.

QUICK PROFITS-NOW

ECONOMICAL DURABLE EFFICIENT

EASY TO INSTALL



MARSH TYPE "R" BONNET ASSEMBLY

The modernization of obsolete radiator valves is a fertile field for immediate volume sales—a field that is open to heating contractors by the tremendous sales advantages of the Marsh Type "R" Bonnet Assembly. Economy, ease of installation, durability, efficiency—these features make this product a real sales-getter—the kind that will make profits for you quickly. Send for complete information today.

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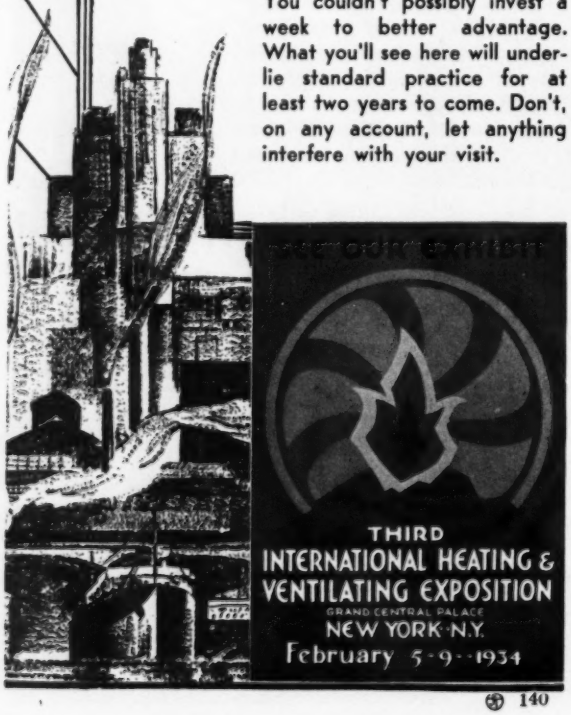
# You Simply Cannot Escape Change

TO stay in business you must know what's new. The whole field of heating, ventilating and air conditioning is being reshaped. Automatic heat, with its boiler-burner-control units and other new appliances, is making giant strides in the domestic and industrial fields. Air conditioning is revolutionizing building, manufacturing, processing, merchandising and home-life itself.

There isn't a man, be he manufacturer, engineer, dealer, contractor or merchant, who can steer a true business course now unless he is familiar with the equipment and appliances which will be exhibited at the coming biennial Heating and Ventilating Exposition under the auspices of the American Society of Heating and Ventilating Engineers.

It's the one place at which you can, in a short week or less, bring yourself up-to-date on this changed, grown-up, going-places industry.

You couldn't possibly invest a week to better advantage. What you'll see here will underlie standard practice for at least two years to come. Don't, on any account, let anything interfere with your visit.

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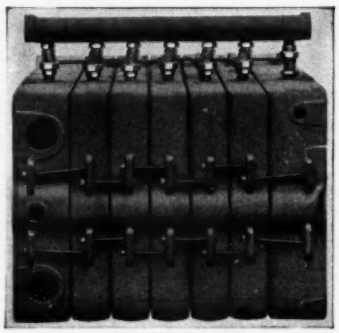
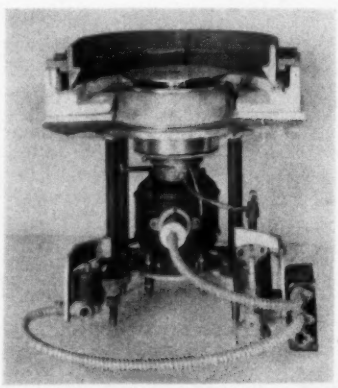
tion of the water in the humidifier. This evaporation is controlled automatically. The heated vapors are caused to rise and spread through the house being humidified. It is designed so as not to affect the normal chimney draft. This unit is made so as to be used with any and all types of heating systems and firing equipment. This humidifier consists of four aluminum reservoirs to which is attached a solenoid valve, which opens or closes the city water supply to the humidifier, and a mercury switch which opens the solenoid valve when the water in the reservoir falls below a certain level and closes the solenoid valve when the proper level is reached.



As for the flexible header, which is shown here, this provides for a movement of ¼ in. in any direction from the center. The fittings that connect the header to the boiler sections are constructed of flexible bellows of nickel silver with brass connections. The header is made of one piece with the idea of reducing to a minimum frictional resistance. Burnham Boiler Corporation, of Irvington, N. Y., is the manufacturer.



### A Rotary Oil Burner

Here is a rotary oil burner which has been placed on the market as a gaseous type unit. It is described as being easily accessible for cleaning and servicing purposes and that only three minutes are required to remove the burner unit from the heater. The manufacturer is Henry Kleinhans, Inc., 330 Morris Avenue, Elizabeth, N. J.

# Gas Boilers—

(Continued from Page 49)

"This work has been accomplished without raising the boiler or providing a pit under the combustion chamber. Naturally, each installation presents an engineering problem of its own and installations only have been attempted after a very careful measurement of the combustion space available and a very careful laying out of the combustion chamber itself.

"Our oldest installation is going into fourth heating season and we have yet to have any difficulty worth mentioning with any of these conversion jobs. Obviously, with this type of installation it is extremely important to maintain a very clean flame and to reduce the deposit of carbon in the very constricted flues of this type of boiler to an absolute minimum."

As has been pointed out in the foregoing and as is further emphasized by still another manufacturer of oil burning equipment, "The success in completing an oil burner installation in gas equipment depends considerably upon the makeup and construction of the gas fired unit. It has been our experience that it is necessary to consider every installation as a separate proposition."

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### A. O. B. A. to Hold Convention and Show in Philadelphia

The American Oil Burner Association will hold its next annual convention and oil burner show on March 5, 6, 7, 8 and 9, 1934, at the Commercial Museum in Philadelphia, Pa.

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### New Method Stove Co. Sells Stoker Department

The New Method Stove Company of Mansfield, Ohio, has sold its stoker department to the National Steam Pump Company of Upper Sandusky, Ohio.

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### Will Wholesale Oil Burners and Refrigerators

The General Electric Supply Corporation has opened a wholesale branch at 714 Liberty Street, Allentown, Pa., where oil burners and refrigerators will be warehoused to serve the trade in the Lehigh Valley. D. J. Sweeney of Philadelphia has been appointed local manager, and W. H. Coleman is district manager.

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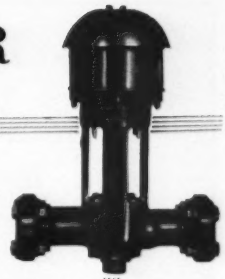
### Recently Appointed Oil Burner Dealers

The Cleveland Steel Products Corporation of Cleveland, Ohio, manufacturers of oil burners and oil-burner boilers, has recently appointed the following dealers for these products: Orr & Rolfe Company, Concord, N. H.; Sagey, Inc., Brooklyn, N. Y.; Fred W. Gilroy Sales Company, Ogdensburgh, N. Y.; Kimmey Specialty Company, Johnstown, N. Y., and V. Harris Zink, Belvidere, N. J.

The HYDROLATOR



Forced Hot Water Circulation Means
1. Lower Fuel Costs
2. Quicker Heat
3. Uniform Heat

This unbelievably quiet circulation pump often saves its cost to the home owner during the first winter. Build your reputation as a "doctor" of "sick" hot water jobs with the HYDROLATOR.

*Write for Bulletin 232-H*

JANETTE MANUFACTURING CO.
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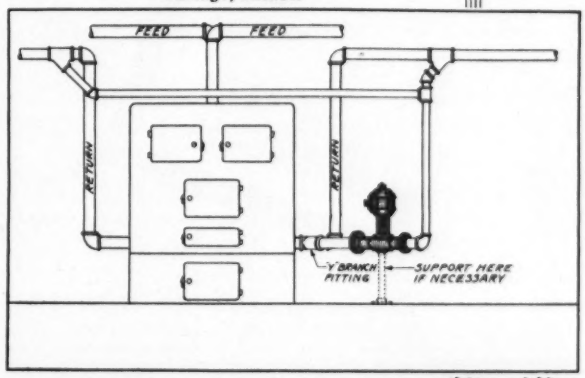
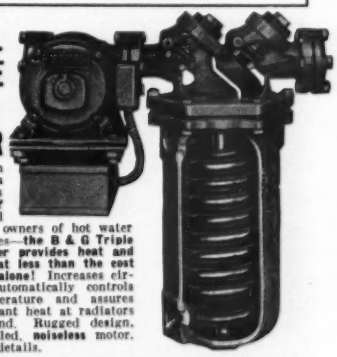



DOMESTIC HOT WATER
•
RAPID HEATING
•
HEAT CONTROL
•
*All from this single Automatic Unit*

B. & G. TRIPLE DUTY HEATER



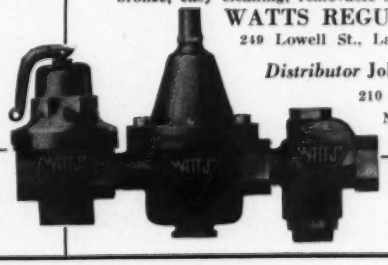
Here's an item with a real sales story of economy and comfort for owners of hot water heated homes—**the B & G Triple Duty Heater provides heat and hot water at less than the cost of heating alone!** Increases circulation, automatically controls room temperature and assures almost instant heat at radiators upon demand. Rugged design, rubber-cradled, **noiseless** motor. Write for details.

BELL & GOSSETT COMPANY
3000 Wallace St. Chicago

WATTS

No. 38 Hot Water Heating Regulator

is one of the WATTS water regulating devices which offer you profit possibilities *today*. Gas burners, stokers and oil burners are your active markets. Consists of all bronze, safety lever, monel metal diaphragm, A.S.M.E. Std. relief valve. Large, quick-filling, self-flushing, all-bronze, reducing valve. All-bronze, easy cleaning, removable strainer.



WATTS REGULATOR CO.
249 Lowell St., Lawrence, Mass.

*Distributor* John G. Kelly, Inc.
210 E. 45TH STREET
NEW YORK CITY

BACKED BY 59 YEARS OF EXPERIENCE AND REPUTATION

*The* FIRST BUILT-IN HEATER
to give
CERTIFIED PERFORMANCE

CONVECTOFIN
The BUILT-IN HEATER

Ask for Complete Details

**Commodore Heaters Corp.**
20 W. 43rd St. New York

**Two Bronze to Bronze Seats—accurately machined and carefully ground — protect the joint—assure freedom from leaks and corrosion. Pipe ends and nut of heavy air refined malleable iron.**

**E. M. DART MFG. CO., Providence, R. I.**
Sales Agents: The Fairbanks Company, New York Branches. Canadian Factory: Dart Union Co., Ltd., Toronto, Canada

*Make* PROFITS *on Remodeling*
THE KAINER
PRESSURE GOVERNOR
*Accurate*
*Simple*
*Safe*
*Automatic Control for Hot Water Heating Systems*

Write today for prices and Bulletin 32-B
A. S. M. E. Approved

KAINER & COMPANY
CHICAGO
761-771 MATHER STREET

We're Against It!

So are you, so are your customers against high gas costs. And your customers don't have to pay them if you install a BARBER Gas Pressure Regulator for them.

Write now for literature and details of this device that makes satisfied customers and good profits for heating men everywhere.

Made in ¼", ⅜", ½", ¾", 1", 1¼", 1½", and 2" sizes

The Barber Gas Burner Co.
3702-4 Superior Avenue
CLEVELAND . . . . OHIO

## Sales Convention of Capitol Rock Wool Insulation Division

The Capitol Rock Wool Insulation Division of the Standard Lime & Stone Company of Baltimore, Md., held its annual sales convention in that city December 8 and 9.

Business sessions were presided over by Frank C. Russell, sales manager, who introduced John H. Baker, president of the organization and other home office officials.

Inspection of the several plant properties at Millville, Martinsburg and Bakerton, West Virginia, occupied the delegates during the first half of the two-day session, the manufacture of rock wool insulation being the high spot of interest during the motor tour through the Maryland and West Virginia hills.

During the business sessions, Mr. Russell traced the rapid growth in the sales of the company's rock wool insulation; discussed merchandising policies and future plans. Other speakers were: H. A. Beers of Cleveland; Hugh McDonald of New Rochelle, N. Y.; Walter Sinclair of Maryland; B. W. Bartlett of Hartford, Conn., and H. E. Corner, of the advertising agency.

The two-day conference closed with a banquet at the Southern Hotel, Baltimore, attended by home office officials and the out-of-town guests. Representatives of distributors were present from the twelve Eastern states.

## Appointed Oil Burner Dealers

Harvey-Whipple, Incorporated, of Springfield, Mass., manufacturers of oil burners, have recently appointed the following as dealers in their products:

Burner Sales Corporation, 970 Grand Avenue, New Haven, Conn.

W. H. Adams, Vergennes, Vermont.

W. F. Bippus Electric Co., 311 Ridgefield Street, Hartford, Conn.

Irving D. Booth, Inc., Elmira, N. Y.

D. E. Burner & Fuel Corp., 82-84 Chestnut Street, Rockville Center, N. Y.

J. E. Doble, Milo, Maine.

Edward Plumbing Co., Rutland, Vt.

F. J. Harris & Son, 20 Wells Street, Greenfield, Mass.

Thomas F. Harney & Sons, 12 Foster Street, Worcester, Mass.

Heating & Plumbing Co., 59 Wall Street, Norwalk, Conn.

Interstate Plumbing Co., 733 Broadway, Albany, N. Y.

Kaveny & Kaveny, 57 Cedar Avenue, Montclair, N. J.

Frank A. Mann, 23 Village Street, Rockville, Conn.

Robert H. Nye, Ashfield, Mass.

F. W. Seahm Co., Madison, Conn.

F. I. Somers & Sons, Inc., Montpelier, Vt.

Waldorf Reid Coal & Oil Co., New Rochelle, N. Y.

H. E. Wilson, Antrim, N. H.

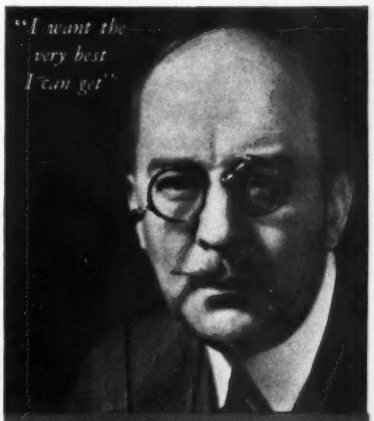
Woolley Coal Co., 12 Burnett Avenue, Maplewood, N. J.

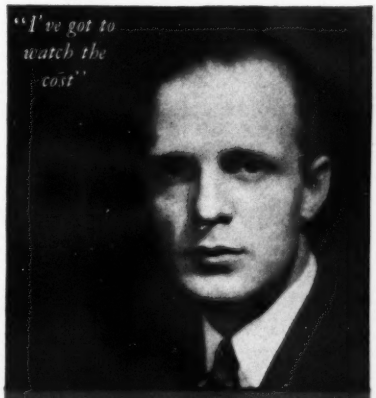
H. L. Tardiff, Tremont Square, Claremont, N. H.

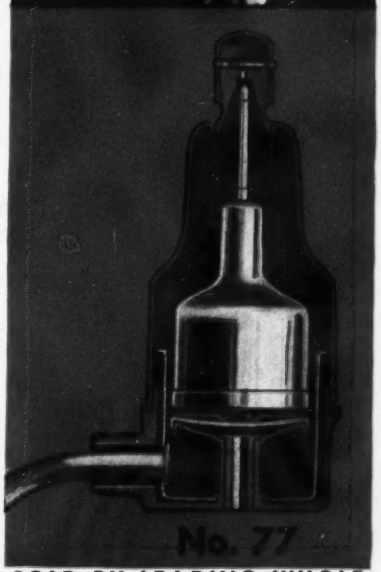
F. S. Woodford, 8 Bostwick Place, New Milford, Conn.

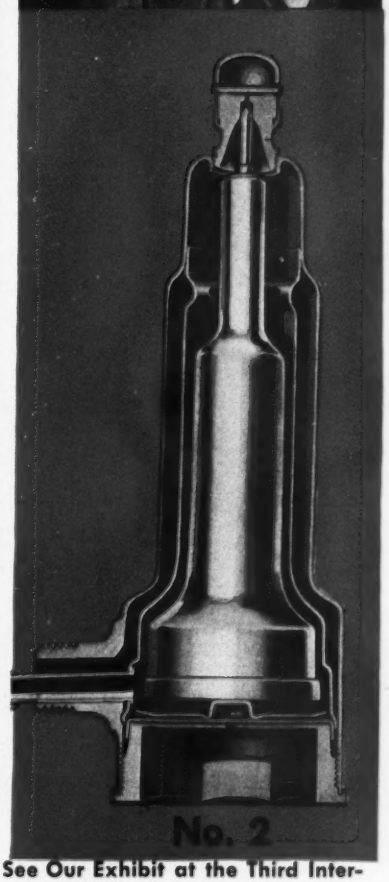
# For this buyer . . .

# and this.




NRA WE DO OUR PART

For each of these buyers, Hoffman makes a vacuum valve exactly suited to his particular needs. The No. 2 is for the man who is satisfied with nothing but the best. The other, No. 77, is for the buyer who must consider the cost.

This is important to you as a heating contractor who aims to give his customers the utmost in satisfaction. Now you can always provide Hoffman quality and performance, whatever the cost requirements may be.

Both these valves have the patented Hoffman Double Air-Locks and the leak-proof Double Shell. Both are constructed of specially alloyed, finest grade metals. And both are manufactured by the Hoffman processes which make Hoffman Valves the most rigidly tested valves on the market.

Hoffman Valves cost more to make. Yet the cost to *you* is practically no greater than that of other valves.

Two convincing tests are offered to prove to you the sound wisdom of always installing Hoffman Valves. If you have not yet seen the Hoffman "Vacuum" and "Spitless" Tests, send the coupon at once. In your own office, our representative will demonstrate the practical value of Double Air-Locked and Double-Shelled construction.

**SOLD BY LEADING WHOLESALERS OF HEATING AND PLUMBING EQUIPMENT EVERYWHERE**

**See Our Exhibit at the Third International Heating & Ventilating Exposition, Grand Central Palace, New York, February 5th to 9th, 1934**

*only* HOFFMAN VACUUM VALVES ARE DOUBLE AIR-LOCKED AND DOUBLE-SHELLED

HOFFMAN SPECIALTY CO., Inc.
WATERBURY, CONN.

HOFFMAN SPECIALTY CO., Inc.
Dept. RX-94, Waterbury, Conn.

☐ Send me bulletin describing Hoffman Venting Valves.
☐ Show me the Hoffman "Vacuum" and "Spitless" Tests.

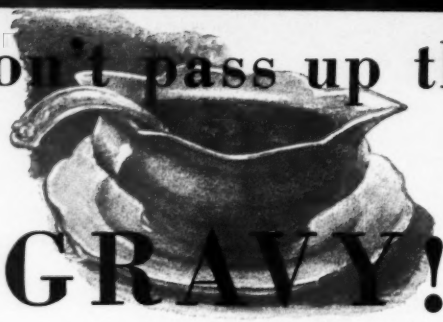
*Name* .....

*Address* .....

*City* ..... *State* .....

*Also makers of Hoffman Traps and Hoffman Economy Pumps*

# Don't pass up the GRAVY!



***that goes with every automatic job old or new***

Opportunity isn't merely knocking this fall—it's threatening to break down your door and walk in! Advertising is telling people that they can "fire their boiler from their easy chair"—that they can practically lock the basement door and throw the key away.

It's a powerful sales argument—an appeal that is selling oil-burners, stokers, and gas-burners on a wide front—but every automatic heat dealer or heating contractor knows that it can bring a kick-back unless the boiler water line is made as automatic as the firing!

With people thinking in terms of automatic heat it is now a simple matter to show them why automatic water level control is an essential part of every automatically fired plant, old or new. The ideal protection is the combined safety feeder and low-water switch combinations, (No. 37-35, No. 30-S-31, and No. 30-L-31) described at the right. But if the owner is not willing to pay the price of completely automatic water level control, the No. 48 or No. 60 will protect the boiler from low-water damage at minimum cost.

These water level control installations are the extra profit—the gravy—in every automatic job. Go after them while the going is good, but don't overlook the hand-fired jobs and the McDonnell Safety Feeders for them as illustrated at the left.

## *Write for this new, condensed catalog and price manual*

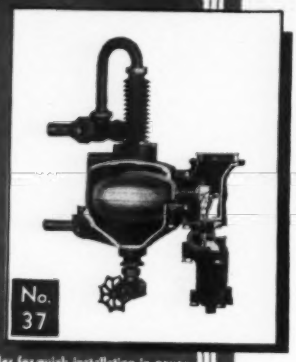
There is still time to help yourself to the gravy. This condensed catalog is a complete sales kit in four pages. It contains prices, wiring diagrams, capacity chart, and all essential data. Write for it.

**McDonnell & Miller,** 1306 Wrigley Bldg., Chicago, Ill.

# McDONNELL
## *Boiler Water Level* CONTROL

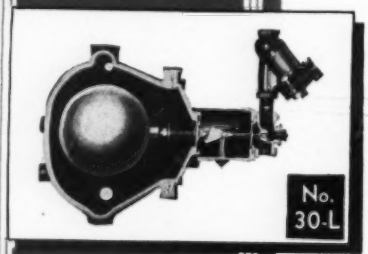
*"Doing One Thing Well"*

## *For* HAND-FIRED JOBS

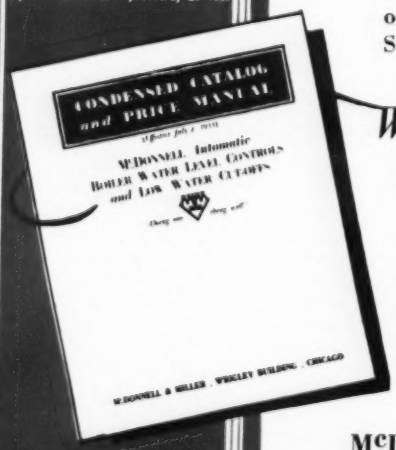



Feeder for quick installation in gauge-glass tappings of hand-fired jobs below 2500 sq. ft. Max. steam pressure, 15 lbs.

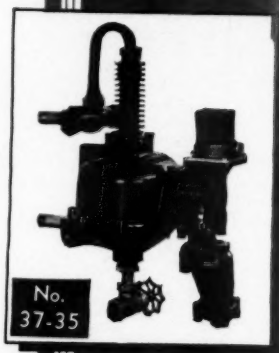
Feeder for hand-fired jobs between 2500 and 5000 sq. ft. Max. steam pressure, 15 lbs.



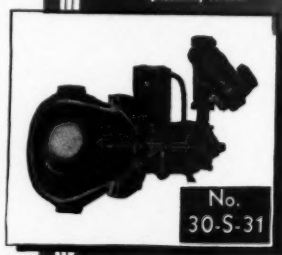

Feeder for hand-fired jobs above 5000 sq. ft. Max. steam pressure, 25 lbs.



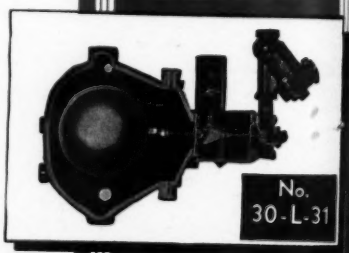

## *For* AUTOMATIC JOBS



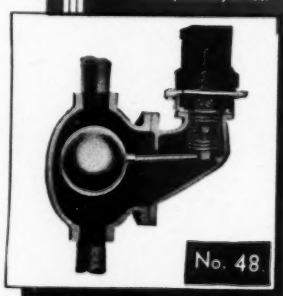

Feeder and Cut-off combined for automatic jobs below 2500 sq. ft. max. steam pressure, 15 lbs.



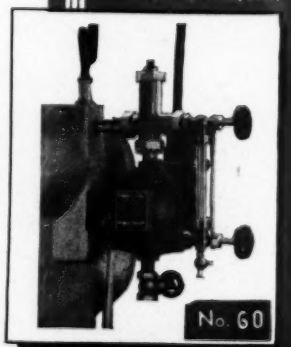

Combined feeder and Cut-off for automatic jobs from 2500 to 5000 sq. ft. max. steam pressure, 15 lbs.




Combined Feeder and Cut-off for automatic jobs above 5000 sq. ft. max. steam pressure, 25 lbs.




Cut-off for automatic jobs of any size. Max. steam pressure, 25 lbs.




Cut-off for quick installation in gauge glass tappings. Max. steam pressure, 25 lbs.

# SUPPLY NEWS

## *Month's Developments among Manufacturers, Wholesalers and Salesmen in All Sections*

### Mack Supply Co. Starts in Business

Mack Supply Company is the name of a concern which has just opened a plumbing and heating supply business at 17 Madison Street, Wilkes-Barre, Pa. The new company is headed by T. J. Mack, who was formerly connected with Eastern Pennsylvania Supply Company and Wyoming Supply & Mfg. Company, both of Wilkes-Barre.

### Wilkins Pipe and Supply Co. Ready for Business

The Wilkins Pipe & Supply Company has just been organized and started in business on January 1 at 1008 South Adams Street, Peoria, Ill., as wholesale dealer in pipes, valves and fittings. The owners of the new company are Charles W. Wilkins, M. H. Schulhof and W. M. Pincus. Charles W. Wilkins, who will be in charge of the business, was for many years connected with the Walworth Company and is known to his many friends and acquaintances as "Tod" Wilkins. Mr. Pincus and Mr. Schulhof operate the supply house of Pincus & Schulhof in Chicago.

### Kent Plumbing Supply Corp. Succeeds Yonkers at White Plains

Kent Plumbing Supply Corporation has succeeded to the business of the Yonkers Plumbing Supply Company at White Plains, N. Y. H. C. Kent is at the head of this new venture.

### Fan Manufacturers Open National Office

The National Association of Fan Manufacturers has opened an office at 5-208 General Motors Building, Detroit, Mich., for the purpose of coordinating its activities under the National Recovery Act. The association, which has been in existence continuously since 1918, represents through its personnel the major portion of the fan and blower industry. With this background of experience the association had available the necessary organization to cooperate with the President in this program.

The new office will be in charge of L. O. Monroe, who has been identified with the industry since 1911.

The National Association of Fan Manufacturers has embarked upon a program of expansion and development, of which this is one of the first steps.

### Quaker City Jobbers Elect Officers

The Quaker City Jobbers Association of Philadelphia, Pa., recently held its annual meeting and elected the following officers for the ensuing year: President, Conrad Muhly; vice president, Laurence Agostoni; treasurer, Rufus Palmer, and secretary, H. Kuehner.

### Geo. E. Trudel Second Vice President of E. S. A.

J. F. Sheppard of the C. S. Mersick & Co., New Haven, Conn., who was elected second vice president of the Eastern Supply Association at its recent annual meeting, finds it impossible to serve, much as he would like to do so, on account of numerous duties which preclude the possibility of giving this office the attention it warrants. George E. Trudel, president of the George E. Trudel Co. of Manchester, N. H., has therefore been named by the board of directors to this office, and he will accordingly serve as second vice president for the ensuing year. Mr. Trudel has a wealth of experience and his counsel will undoubtedly be of great value to his fellow officers and directors in the Eastern Supply Association.

### Has Opened Supply Business in Clifton, N. J.

Clarke Supply Company is the name of a concern which recently opened a plumbing and heating supply business at 511-513 Lexington Avenue, Clifton, N. J. The officers of the new company are: Charles J. Clarke, president, and Leo J. Clark, secretary and treasurer. The latter was formerly connected with the Pierce, Butler & Pierce Manufacturing Company's branch at Newark, N. J.

### New Company Now Ready for Business

Burke Plumbing and Heating and Supply Company is the name of a concern which has just started in business at 3242 White Plains Avenue, Bronx, New York City, under the management of Louis Sonkin.

### Carries On Supply Business

B. Shipp, formerly of Shaftel & Shipp, is carrying on the business of wholesaling plumbers, steam and gas fitters supplies at 85-87 Varet Street, Brooklyn, New York. This is the same address as the old company, the business now being carried on under the firm name of B. Shipp.

### Has Purchased the Freeman Boiler Works

Kroeschell Boiler Company of Chicago has purchased the boiler works, records, drawings, patterns and good will of the Freeman Boiler Works in Racine, Wis., and will continue the operation of its plant at 100 Reichert Court in Racine. The general offices of the Kroeschell Boiler Company is now located and will remain at 3253 North Kedzie Avenue, Chicago.

### Pipe Tool Manufacturers Approve Supplementary Code

The Pipe Tool Manufacturers' Association held a meeting at Hotel Cleveland in Cleveland, Ohio, on Saturday, December 16, at which a supplementary code of fair trade practices was developed and unanimously approved. Being a member of the Fabricated Metal Products Federation, the Pipe Tool Manufacturers' Association has been operating under its basic code which was approved by President Roosevelt on November 2, and became effective November 13, 1933.

Pursuant to the policy of the Federation the Pipe Tool Manufacturers' Association has submitted this supplementary code, which will apply to the pipe tool industry only, to the Federation for its approval and for presentation to the President.

### Will Subscribe to Code for Heat Exchange Industry

The National Recovery Administration has announced that Indirect Water Heater Manufacturing Industry has decided to subscribe to the code for the Heat Exchange Industry, which has been approved by President Roosevelt.

### Is Now Located at Dover, N. J.

The Main Plumbing Supply Company of Union City, N. J., has moved to 91 East Blackwell Street, Dover, N. J. The president of this company is S. Rosenbaum.

### Fairbanks, Morse & Co. Finish a Sales Campaign

Fairbanks, Morse & Company of Chicago announce that their salesmen have finished a most interesting sales campaign under the direction of Henry J. Barbour, of the sales manager's department, and which was known as the "Step Ahead Campaign." The contest was in duration for about 18 weeks and was completed on December 2nd. The idea was for each salesman to "step ahead" of his sales quota for that period as far as possible, and the salesman of each branch house territory who stepped ahead the greatest distance in percentage of his quota received a handsome gold watch as a prize. The following are the list of winners of this contest: J. M. Spinks, Atlanta; E. J. Hay, Chicago, and W. G. Campbell, Chicago; R. J. Walsh, Boston; Ernst Keune, Cincinnati; C. E. McLaughlin, Cleveland; R. C. Carsey, Dallas; J. I. Charlton, Kansas City; G. K. Bretherton, Los Angeles; J. W. Martin, New Orleans; S. M. Fay, New York; C. J. Schroeer, St. Louis; Claude Sanders, St. Paul; M. R. Stanton, San Francisco, and E. J. Davidson, Seattle.

### Thos. Devlin Mfg. Co. Holds Annual Sales Meeting

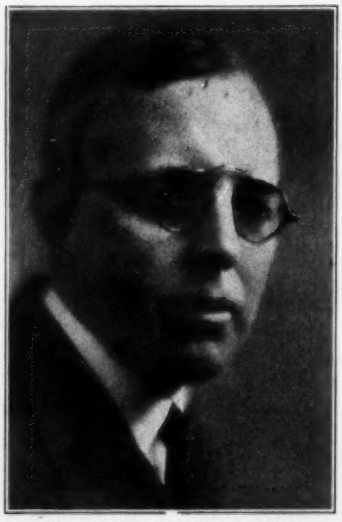
The Thos. Devlin Manufacturing Company of Burlington, N. J., held its annual sales meeting on Thursday and Friday, December 28 and 29. The first day's session was held at the Penn Athletic Club in Philadelphia, where a general discussion on sales and merchandising problems was held. The second day was spent at the plant at Burlington, N. J.

# Observations on the NRA Code

By Rolland J. Hamilton, President of the American Radiator Co., and Member of the President's Industrial Advisory Board

*IN any fair judgment of NRA as a mechanism for recovery, there must be a definite segregation of viewpoint as between short term and long term implications. It is unfortunate that the short term viewpoint has been over emphasized; indeed practically all current discussion and newspaper comment has to do with this phase.*

*The making of codes is difficult and aggravating at best. Agreement between the many members of an industry—seldom accustomed to accord—must be reached and then molded to NRA requirements, including labor and consumer demands. The result so attained becomes statutory law for the industry and is far from perfect; but despite this it is our observation that practically all codes actually in operation are accounted beneficial.*



*In the great activity of code making, however, the long-term appraisal has been too often neglected. Child labor and sweat shop conditions are rapidly disappearing. Business is freed from many of the blighting restrictions of anti-trust legislation. Unfair trade practices are being defined and banned as never before in our industrial history. Cooperation within industry is encouraged and demanded in order to attain that degree of self-government which is the charter of NRA to business. All of these, and many other advantages, could be further accentuated if industry would accept a broader viewpoint and, instead of seeking to have Government take charge and "pull business out of a hole," would submit to the discipline necessary for true self-government. Until this is attained we must expect a material degree of "Government in business."*

### Appointed New England Distributor

General Fittings Company, 100 Baker Street, Providence, R. I., has just been appointed exclusive New England distributor for the Nye Tool and Machine Works of Chicago. The territory to be covered includes Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut and the eastern portion of New York state, outside of the metropolitan area. The General Fittings Company is also New England representative for Thomas Devlin Mfg. Co., Burlington, N. J.; Pennsylvania Range Boiler Co., Philadelphia, and H. A. Thrush & Co. of Peru, Ind.

Frank E. Johnson, who has represented the Nye Tool & Machine Works for the last seven years, has joined the sales force of the General Fittings Co.

### Philadelphia Office of Trenton Potteries Gave Christmas Party

Fred J. Mac Kenzie, manager of the Philadelphia office of the Trenton Potteries Company of Trenton, N. J., and his assistants, John Radice and Otto Weis, gave a Christmas party on Friday, December 22, at their office in the Architects Building. Jobbers, master plumbers and architects in Philadelphia were invited to the party, and a large number of them accepted the invitation and had a most enjoyable time.

### Semler Co. in New Location in New York

The Semler Company of Jeannette, Pa., has just announced that on and after January 1 its address in New York City will be 501 Fifth Avenue. The offices will remain in charge of John H. Munro, who has been the eastern sales manager of the Semler Company for the last three years. The company's warehouse and general office, which have been located in Long Island City since 1930, have been discontinued.

### Stahot Heater Corp. in New Location

Stahot Heater Corporation of Brooklyn, N. Y., has moved from 146 Gratton Street to larger quarters at 366 Oakland Street in Brooklyn.

### Will Cover Northern California and Nevada

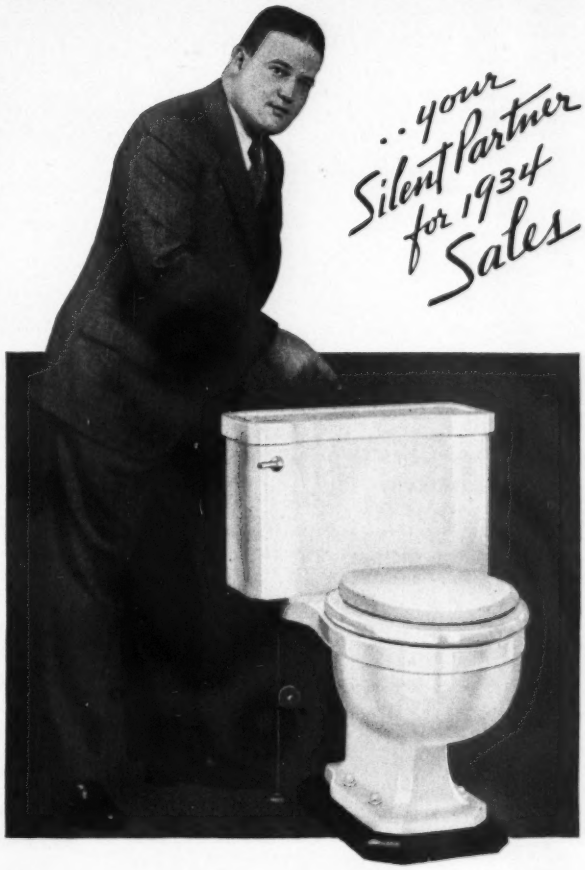
Paul B. Rayburn Company of 508 Fourth Street, San Francisco, Calif., has been appointed representative for J. B. Wise, Inc., of Watertown, N. Y., to cover Northern California, including Fresno, and the state of Nevada.

### San Francisco P. and H. Club Holds Successful Christmas Party

Golf, goodfellowship, a turkey dinner and an elaborate cabaret show were the high lights of the ninth annual hi-jinx and Christmas party of the Plumbing and Heating Club of San Francisco and the Bay Cities held at the Lake Merced Golf and Country Club on the afternoon and evening of December 14th. Due to the well-laid plans of General Chairman W. H. Rainwater and committee heads, consisting of W. Allan Taylor, Elmer K. Ross, R. J. Fuite and Robert Allmon, the affair "clicked" without a halt from start to finish. With nearly 225 attending the banquet, a generous representation of all three branches of the industry helped in the celebration.

Prizes for almost every conceivable kind of golf brought out ten foursomes. The winners were: R. J. Fuite, low net,


CLIMAX
..CLOSE-COUPLED..




THIS quiet, free standing closet . . . styled and engineered to enhance the modern bathroom ensemble or for incidental replacement where space is limited . . . has won immediate and lasting popularity in the modern home.

If you are looking for a profit leader that combines appearance, utility and PRICE, look at Climax, for here is a close-coupled closet that is not "on trial."

See your jobber, or ask us to send you the "Inside Story of Climax." Make this Universal item your silent partner for 1934 sales.

UNIT-CAST
UNIVERSAL SANITARY
MANUFACTURING CO. NEW CASTLE, PA.

Class A; T. J. Mixter, low gross, Class A; J. J. McLeod, low net runner-up, Class A; F. F. Elliott, low gross runner-up, Class A; F. Harmon, low net, Class B; Robt. Allmon, low gross, Class B; Ed. Kraus, low net runner-up, Class B; Chas. Higgins, low gross runner-up, Class B; W. P. Scott, guest prize; Thos. Douglass, runner-up, guest prize; Frank Mosher, least number of pars, Class A; Ralph Olsen, least number of pars, Class B; B. Brace, blind bogey; A. Carrigan, dub, Class A; H. Hoobes, dub, Class B, and C. P. Hensley, prize for most divots.

| | Gross | Hdcp. | Net |
|---|---|---|---|
| Cranston, A. R. | 100 | (G) | 100 |
| Grimshaw, A. | 106 | (G) | 106 |
| Elliott, F. F. | 89 | 10 | 79 |
| Hensley, C. P. | 106 | 27 | 79 |
| Gladstone, H. B. | 98 | (G) | 98 |
| McLeod, J. J. | 91 | 13 | 78 |
| Carrigan, A. | 104 | 15 | 89 |
| Olsen, R. | 115 | 27 | 88 |
| Brace, B. | 111 | (G) | 111 |
| Higgins, C. | 101 | 19 | 82 |
| Darbyshire, W. | 100 | (G) | 100 |
| Fuite, R. J. | 91 | 14 | 77 |
| Forsythe, J. | 106 | 21 | 85 |
| Mixter, T. | 80 | 8 | 72 |
| Scott, W. P. | 108 | (G) | 108 |
| Allmon, R. | 103 | 19 | 84 |
| Gibbs, Chas. | 110 | (G) | 110 |
| Cranston, J. B. | 100 | (G) | 100 |
| Sweeney, L. W. | 108 | (G) | 108 |
| Flemming, J. | 96 | 17 | 79 |
| Taylor, W. A. | 98 | 14 | 84 |
| Hoopes, H. | 118 | 28 | 90 |
| Mosher, F. | 105 | 17 | 88 |
| Greer, J. | 103 | 17 | 86 |
| Woodson | 98 | 17 | 81 |
| Heieck, E. | 91 | 12 | 79 |
| Kraus, E. | 105 | 23 | 82 |
| Douglass, T. | 86 | (G) | 86 |
| Hudson, R. | 99 | 19 | 80 |
| Rainwater, W. H | 98 | 17 | 81 |
| Harmon, F. | 115 | 35 | 80 |
| Wooldridge, W. P. | 119 | (G) | 119 |
| Cohn, L. J. | 114 | (G) | 114 |
| Saul, E. C. | 111 | 25 | 86 |

## Appointed Sales Representatives in San Francisco

The Merrill Company of 343 Sansome Street, San Francisco, Calif., has been appointed sales representatives in the San Francisco territory for the United States Stoneware Company of New York City, manufacturers of chemical stoneware and corrosion-proof equipment, according to announcement just issued by Howard Farkas, sales manager.

## How Traveling Displays Have Created Business for the Heating Contractor Dealer

In an effort to create prospects for its dealers in hot water heating plants for small homes and buildings, twenty-nine traveling displays were recently provided by the American Radiator & Standard Sanitary Corporation. These displays were arranged on automobile trailers shown in the illustration on next page, and it is said that they have created a prospect a hour for heating contractor-dealers from Maine to Oregon.

The following gives a birdseye view of the reception, which these displays and demonstrations have met at the hands of the dealers and the public throughout the country.

The trailers, each of which carries one of the new Arcolas set-up with four radiators and copper fittings, have been made available for use in towns throughout the country by the branch offices and salesmen of the American Radiator Co., as part of the company's dealer aid campaign in introducing the new product.

Using the trailer to tell a story to rural residents, W. B. Arnold, plumbing and heating contractor of Waterville, Me., made a trip with one of these American Radiator heating plants on wheels to Clinton, Me., a town that has only 300 inhabitants. The trailer was parked in front of the general store and practically every person in the town came to see it. When he left six hours later, Contractor Arnold had six requests for estimates and a list of prospects to be followed at a later date.

Again, in Winchester, Md., where Miller & Anderson are dealers for the new heater, a trailer was parked on one of the main streets at night and eight prospects were obtained between sundown and 11 p. m., while in Centralia, N. Y., a

KENNEDY
Radiator Valves
DESIGNED in accordance with standard roughing-in dimensions and include every desirable type—angle, straightway, and offset corner, with or without unions, right or left-hand and with wheel or lock shield and key on operating stem. Kennedy Valves, Malleable Iron and Brass Fittings help to speed up pipe fitting jobs by their uniform excellence and ease of connecting up to pipe lines.
You can obtain Kennedy Products from your local supply house.
The Kennedy Valve Mfg. Co.
Elmira, N. Y.
Branches and Warehouses in Principal Cities
NRA
WE DO OUR PART
K
K V

Left to right: William Getzendanner, of the American Radiator Co.; Mayor W. H. Hopkins of Easton, Md.; Willliam H. Elliott, architect; Robert Killgore, of the American Radiator Co., and Contractor-Dealer J. Marion Wilkinson of Easton, Md.

trailer parked before K. W. Webster's store brought three prospects in less than an hour.

The manner in which the trailers have been used, has varied in different towns according to the needs of the local contractors, the character of the different communities and the reactions of individuals. Contractors have had the trailers parked in front of their stores, in front of motion picture theaters, the county court house or other prominent places in their communities.

They have used them, as Contractor Arnold used one of the display units, to create sales through demonstrations in rural communities. They have used them to give demonstrations at the homes of prospects to close sales, or for various special purposes. The Main Plumbing & Heating Co., of Royal Oaks, Mich., for instance, used one of the trailers in the local N. R. A. parade and when the parade was over there were three prospects in the company's store waiting for estimates.

The results, the contractors report, have been that the trailers not only attracted attention that has led to the sale of the heating unit displayed, but that they have created an interest in heating that has led to the sale of other products and has helped to close sales with doubtful prospects.

With the trailer, the contractors declare, the use of the new heater is more easily explained. It is possible, they say, to convince people that this unit makes it practical for the first time to install a central house heater on the same level with radiators, making it unnecessary to have a cellar to have radiator heat. Further, people can see for themselves that the new unit is more attractive in appearance than the average stove and can be either installed in a basement or used to replace a stove in one room while it heats other rooms with radiators.

To present this story of how the new heater can be used, Schirmer Brothers, contractors of Hibbing, Minn., ran an advertisement in the local paper announcing that one of the trailers would be at their store. They drew a crowd of 125 persons, three of whom came into the store immediately to request estimates.

Various reports show how the traveling displays have created an interest that has caused people to buy all types of equipment to meet their heating needs. In Waco, Texas, one of the trailers was parked in front of Hill Brothers' store. A man driving past the store in a Lincoln car circled the block, stopped, and one hour and 10 minutes later bought a large oil burning boiler for his home. In Catskill, N. Y., the trailer brought inquiries that led to the sale of two large home boilers.

One of the experiences of the Southbridge Plumbing & Heating Co., of Southbridge, Mass., shows how the trailers have sold heating equipment where other efforts have failed. The company had been trying all fall to sell a one pipe steam installation to a local resident. He had replied that he could not afford to buy the unit and would have to wait until next year. When they drove up to his door with one of the trailers, he asked for an estimate on an immediate Arcola installation.

Similarly, Ryan Brothers, of Vergennes, Vt., had a prospect to whom they had been trying to sell a heating plant for several years. Seeing an Arcola trailer parked in front of their store, this prospect examined the new heater and then asked that the trailer be driven to his home so that his daughter could see the display. The visit brought another request for an immediate estimate. Contractor Arnold, of Waterville, Me., sold radiator heat with the aid of a trailer to a farmer who was building a new house that he had planned to heat with an inexpensive warm air furnace.

The results achieved with the trailers have not only convinced dealers that they should have displays of the new heaters, which are built for oil, coal or gas, in their stores but they have led a number to decide that they want traveling displays for their exclusive use. Joseph O'Grady, of Beacon, N. Y., built an Arcola display on his truck and used it in the Beacon N. R. A. parade while other dealers have asked how they could purchase trailers similar to those now in use. To meet this demand, the American Radiator Co. has arranged to obtain trailers at wholesale prices and turn them over to individual dealers at cost.

# NYE TOOLS

**NYE SOLID MALLEABLE STOCK**
***With Adjustable Guide***

*Capacity ⅛" to 1" Pipe*

This stock regularly furnished with Nye No. 1 Solid Skip Tooth Threaded Throat Dies. Will take solid 2½x2½ Square Dies of any make.

The die fits snugly and is held securely to the stock by two screws, assuring perfect alignment with the pipe. Die may be removed by partially loosening the screws and sliding it out sideways.

In addition to pipe ⅛ to 1", the compact adjustable guide will accommodate a 1" coupling when the operator finds it necessary to thread short nipples. Will also handle bolts from ¼ to 1".

*ASK YOUR JOBBER*

***The* NYE Tool & Machine Works**
4120-30 Fullerton Avenue, Chicago, Ill., U. S. A.

MADE FOR LONG RUGGED SERVICE

Boiler Tube Cleaners, Flue Brushes, Wire Heater Brushes, Handy Cleaner Brushes, Fire Brooms, Track Brooms.
*Tempered Steel*

*The Worcester line is complete.*
*Catalog gladly sent upon request.*

**WORCESTER BRUSH and SCRAPER CO.**
10 AUSTIN STREET :: WORCESTER, MASS.


# Obituaries—

## Samuel D. Hopkins

Samuel Duffield Hopkins, for many years connected with the plumbing supply trade in Philadelphia, died at the Memorial hospital in Roxborough in that city November 24 in his 80th year. Mr. Hopkins was born in Gap, Pa., and was a direct descendant of George Ross, one of the signers of the Declaration of Independence. He was educated at Andalusia College. Early in his business career he was connected with the Reading Iron Company. Following this he was for twenty years manager of the Philadelphia branch of Crane Company, and later was vice president of the Hunter & Dickson Company in Philadelphia. He retired from business fifteen years ago.

## Abraham Friedman

Abraham Friedman, president of the A. & J. Friedman Supply Co., Inc., of Passaic, N. J., died at his home in that city on December 18 in his 42nd year, after one week's illness. Mr. Friedman had been connected with the wholesale plumbing supply business for the last 21 years, and he also was president of the Charles F. Guyan, Inc., pipe distributors at 501 Fifth Avenue, New York City. He had a large circle of friends in the trade.

## Walter G. Sine

Walter G. Sine, who has represented the Trenton Potteries Co. in Chicago for over twenty years, died on Friday, December 1. Prior to locating in Chicago Mr. Sine resided in Morrisville, Pa. He was connected with the Trenton Potteries Co. of Trenton, N. J., for 38 years, serving in various capacities. After locating in Chicago Mr. Sine confined his activities to the states of Wisconsin, Minnesota, Illinois, Iowa and Missouri, but previous to making his headquarters in Chicago, he covered all the states west of the Mississippi including the Pacific Coast.

## Miss Mary Corless

Miss Mary Corless, secretary of J. B. Wise, Inc., manufacturers of plumbers' brass goods, at Watertown, N. Y., died at her home in that city on Sunday morning, December 3, after a long illness, in her 74th year. Miss Corless was born in Watertown and had been connected with the Wise concern 38 years; and with its incorporation in 1912 she became its secretary, a position she held until her death Two sisters and several nephews and nieces survive her.

## Thomas J. Bray

Thomas J. Bray, a director and member of the executive board of the Youngstown Sheet & Tube Company of Youngstown, Ohio, died suddenly of heart failure at the offices of this concern on Monday morning, December 11, in his 67th year. Mr. Bray was president of the Republic Iron & Steel Company from 1911 to 1928. Of late he had been active in furthering plans to have the United States government approve the project for a ship canal from the Mahoning valley to the Ohio river.

## Harrison Shields

Harrison Shields of the Leighton Supply Company of Fort Dodge, Iowa, died at the Lutheran Hospital in that city on Friday, December 8, after five days' illness of pneumonia, in his 62nd year. Mr. Shields had been connected with the Leighton Company for the past thirty-one years, first as clerk, warehouseman, warehouse foreman and lately as traveling representative, and he had a large circle of friends and acquaintances in the trade. His wife, a daughter and three sons survive him.

# Business Personals

HOWARD COONLEY, president of the Walworth Company of New York City, was re-elected president of the American Standards Association for the year 1934, at the annual meeting of the association, which was held recently at the Hotel Astor in New York. The American Standards Association is composed of thirty-six organizations, among them the American Society of Sanitary Engineering and the Cast Iron Pipe Research Association.

WILBERT WEAR has been elected president of the Harrisburg Pipe & Pipe Bending Company of Harrisburg, Pa., succeeding the late C. B. Houck. Mr. Wear has been treasurer of this concern since November 1, 1929, and he will also continue to serve in that capacity.

Stewart M. Murdoch

STEWART M. MURDOCH, formerly for many years vice president of the National Plumbing & Heating Supply Company of Chicago, has just been appointed sales representative in the Chicago territory for the American Sanitary Manufacturing Company of Abingdon, Ill.

E. B. SNAREY, for several years director of purchases for the Mueller Brass Co. of Port Huron, Mich., severed his connection with this concern on December 23 and is now engaged in the promotion of nonferrous products for the Central Steel and Wire Co., with office at Detroit, Mich.

JAMES L. ELWOOD has been appointed sales manager of the air filter department of the Owen's Illinois Glass Company of Toledo, Ohio. He has for some time been sales manager for zone 1 of this department, comprising Toledo and surrounding territory. Mr. Elwood also holds an M. E. degree from Cornell University and has had experience as an executive in the General Motors Corporation, he is therefore well qualified for his duties as sales manager.

W. N. MCVICKER, associated for some years past with United States Sanitary Co., Pittsburgh, Pa., as manager of its New York Office, announces he will now represent Camden Potteries Co., Camden, N. J., in the Greater New York territory.

C. R. MIDDLETON, for the last seven years connected with the hospital department of the Standard Sanitary Manufacturing Company in New York City, has severed his connection with this concern and has accepted a position with General Ceramics Company's office at 71 West 35th Street, New York City, to cover the metropolitan area, under the direct supervision of W. G. Davis, general sales manager.

WILLIAM SIPPEL has been appointed manager of sales and purchases for Fleck Bros. Company of Philadelphia, according to announcement issued by this company. Mr. Sippel assumed his new duties December 1.

F. M. DE BEERS, former president of the Swenson Evaporator Co. of Chicago, has been appointed representative for the Chill-Vactor department of the Croll-Reynolds Engineering Co., Inc., of New York City. The equipment, which Mr.


It's a KOVEN Product

What's behind the Plumber that instills CONFIDENCE ?

His own labor must be good—but this is all wasted if he does not install equipment that is a quality product.

To protect his own good name, the plumber must buy from the house that has always sold quality merchandise.

For over 52 years, the leading plumbers throughout the country have learned that the unblemished reputation of this firm has always stood for the highest in quality, and the Koven name is the stamp of approval of the discriminating.

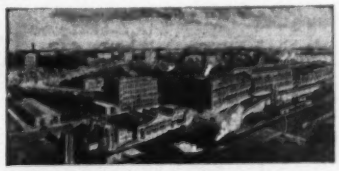
RANGE BOILERS
Galvanized or Copper
SCULLERY SINKS
BARBER BOILERS
KOVEN-PARACOIL TANKS

NRA WE DO OUR PART

STORAGE TANKS
Steel or Copper
FUEL OIL TANKS
EXPANSION TANKS
SEPTIC TANKS

Insist on the best by asking for KOVEN products from your jobber.

*Send for new Plumbers' Hand Book.*



L.O. KOVEN & BRO. INC.
JERSEY CITY, N.J.

# *For* UNUSUAL SERVICE

When the Gulf Refining Company Building was erected in Pittsburgh, it was only natural that the specifications should call for material of almost super worth. Such a building, modern in its every appointment, of necessity demanded G & C all-copper tanks.

And so it has been on big jobs and little, wherever the service demand would be unusual, you will find G & C.

Men in the field long have been acquainted with everlasting copper tanks built by Gerstein & Cooper. From the smallest range boiler to the largest tank you will have call for—let G & C serve you.

G & C BOILERS TRADE MARK REGISTERED

GERSTEIN & COOPER CO.

113 W. THIRD ST.
SOUTH BOSTON, MASS.

REPRESENTATIVES

Gerstein & Cooper Co., Baltimore, Md.; G. Mason Price, Montreal, P. Q.; Gerstein & Cooper, New York, N. Y.; Troop Water Heater Co., Pittsburgh, Pa.; Strong, Carlisle & Hammond Co., Cleveland, Ohio; Edw. Sinn, Harrison, N. J.

Three 1000-gal. G & C All Copper 400 lb. hydrostatic test tanks installed in Gulf-Refining Co.'s Building, Pittsburgh, Pa.

COPPER FOR SATISFACTION


de Beers will handle is used with air conditioning systems and industrial cooling operations. Mr. de Beers will retain his headquarters at 20 North Wacker Drive, Chicago.

Dan Reinhardsen

## New Manager of N. Y. Offices of Spencer Heater Co.

The Spencer Heater Company of Williamsport, Pa., a division of the Cord Corporation, has just announced the appointment of Dan Reinhardsen as manager of its New York offices. Mr. Reinhardsen has been connected with the New York offices of the Spencer Heater Company for twelve years and through his contacts has made a wide circle of friends and acquaintances. He is thus well qualified for his new duties.

## Enjoyed Deep Sea Fishing Party

B. F. Stolinsky, president of the Ben Plumbing Supply Company, and Harry Srulowitz, president of the Ideal Supply Company, both of Jersey City, N. J., enjoyed a deep sea fishing party at Colera banks, December 7. The following were also in the party: Ed. Wittreich, master plumber of Secaucus, N. J.; J. Leach, master plumber of Palisades Park, N. J.; R. Cleary, heating contractor in Jersey City; A. Eisenstadt of Palisades Park, and E. C. Morris, vice president of Ideal Supply Company, Jersey City.

# Convention Dates

**January 16 and 17, 1934.**—SOUTH DAKOTA.—The annual convention of South Dakota Retail Plumbers' Association, at Sioux Falls, S. Dak., with headquarters at the Cataract Hotel.

**January 16, 17 and 18, 1934.**—ILLINOIS.—The 41st annual convention of the Illinois Master Plumbers' Association, at Quincy, Ill., with headquarters at the Lincoln-Douglas Hotel.

**January 23 and 24, 1934.**—WISCONSIN.—The annual convention of the Wisconsin Master Plumbers' Association in Milwaukee, with headquarters at the Hotel Schroeder.

**February 5 and 6, 1934.**—WEST VIRGINIA.—The annual convention of the West Virginia Master Plumbers, at Charleston, W. Va., with headquarters at Kanawha Hotel.

**February 5-8, 1934.**—A. S. H. V. E.—The annual meeting of the American Society of Heating and Ventilating Engineers, in New York City.

**February 5-9, 1934.**—I. H. V. E.—The third annual International Heating and Ventilating Exposition at the Grand Central Palace in New York City.

**March 5-9, 1934.**—A. O. B. A.—The annual convention and oil burner show of the American Oil Burner Association, at the Commercial Museum in Philadelphia, Pa.

**March 12, 1934.**—KANSAS.—The annual convention of Kansas Master Plumbers Association, at Wichita, Kans. The date is tentative.

**April 16 and 17, 1934.**—TEXAS.—The annual convention of the Associated Master Plumbers of Texas, at Galveston, Texas, with headquarters at the Buccaneer Hotel.

**May 5, 1934.**—I. M. P. A.—The annual convention of the Idaho Master Plumbers' Association, at Boise, Idaho.

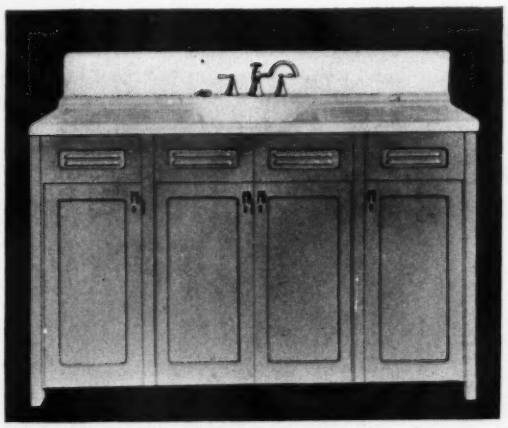
**May 7 and 8, 1934.**—FLORIDA.—The annual convention of Florida State Association of Master Plumbers and Heating Dealers, Inc., at Gainesville, Tex., with headquarters at the Graham Hotel.

**May 21 to 24, 1934.**—C. M. P. A.—The annual convention of the California State Master Plumbers' Association, at Sacramento, Calif., with headquarters at Hotel Senator.

# New Store AND Job Items

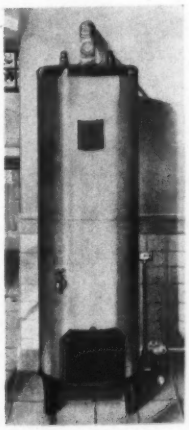
## A Cabinet Ledge Sink

Here is an enameled sink which just recently has been placed on the market for installation in connection with cabinet or tiling work. It has been designed so as to fit in either small efficient kitchens or larger rooms. It has a narrow rim, the idea of which is to bring the compartments close to the front so that the person at the basin can work without stooping. A toe recess is provided. This is closed at the rear to facilitate cleaning. A metal cabinet underneath the sink is available for storing working equipment. Across the entire back of the sink is a 3 in. integral ledge which forms a shelf for soaps, powders, brushes, tumblers and the like. The 8-in. back and 8-in. ends have been made square to facilitate the installation of millwork. The 8-in. deep basin is equipped with a strainer and drain control. A chromium-plated swing spout mixing faucet, a disappearing spray hose for rinsing, and two depressed soap dishes also are included in this unit. In the cabinet, air enters through holes at the bottom and leaves through the louvres at the top. The manufacturer of this unit is Kohler Company, of Kohler, Wisc.



## A Kerosene Burning Water Heater

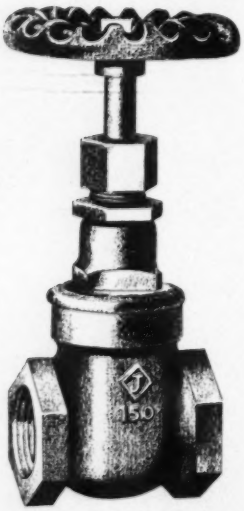
This kerosene burning water heater which just recently has been placed on the market is described as being fully automatic. It is of the storage type and is surrounded by 1½ in. of laminated mica insulation. In operation when water is drawn from the heater through any faucet, the thermostat automatically opens the fuel valve which allows a measured quantity of fuel to pass through the burner for ignition by what is described as dual kerosene burning pilots. The burner continues its operation with a blue flame until the water in the tank again reaches the desired temperature, when the thermostat automatically closes the fuel valve, thus shutting off the burner and permitting only the small dual pilots to burn continuously. The heater is built in two sizes, namely, 22 gallons and 32 gallons. The 22-gallon size is listed as having a recovery of 20 gallons per hour over an 80-degree temperature rise, and is suitable for a one bathroom home. The 32-gallon size has a recovery of 22 gallons per hour with an 80 degree temperature rise and is designed for the average two bathroom home. It is stated that either of these heaters may be installed with an additional storage tank up to 150 gallons capacity to handle requirements of larger homes or light commercial installations. The Lonergan Mfg. Co., 229 Factory Street, Laporte, Indiana, is the manufacturer.



## New Long Length Tubing

The accompanying illustration shows reels of copper tubing which is now being produced in long lengths. It can be furnished with a flash coat of tin on either the inside or the outside. This tubing is described as being unusual in that it can be produced in long lengths anywhere from 200 ft. up depending upon the diameter of the tubing. The maker is The French Manufacturing Company, of Waterbury, Conn.

JARECKI
VALVES

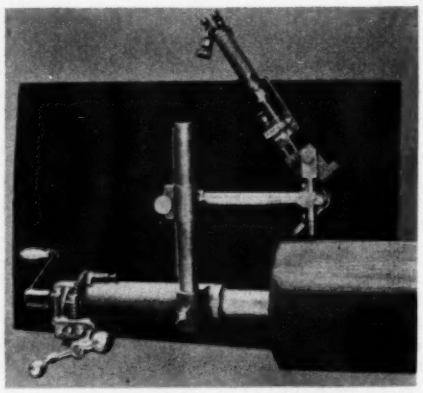



● The formula for the success of Jarecki Valves is simple enough: To 87 years' metallurgical, manufacturing and engineering experience, add one of the country's most modern plants. Combine these with old-time standards of sturdiness, add to them a policy of testing every valve far *beyond* its working pressure rating—and you have the reason why so many companies *standardize* on Valves by Jarecki. A full line—write for name of nearest distributor.

Jarecki
MANUFACTURING COMPANY
ERIE, PA., U. S. A.

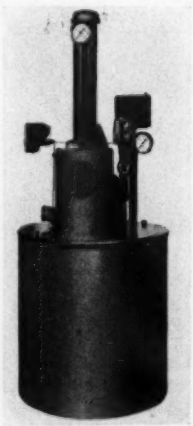
## Cutting Machine Is Announced

The accompanying illustration shows a cutting and beveling machine which has just been announced. It consists of a center rod with 3 spreading arms which press against the inner wall of the pipe for the purpose of holding it in position. Another arm supports a blowpipe that can be adjusted to the desired angle of the cut. The blowpipe and arm rotate without the use of a crank for quick centering of the device and by means of a crank when doing actual cutting. The machine is made to take almost any hand-cutting blowpipe. The Linde Air Products Company, 30 East 42nd Street, New York, is the manufacturer.

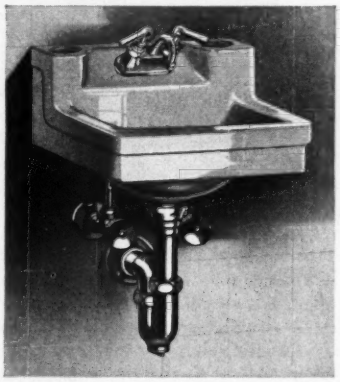


## A Vacuum Heating Pump

Here is a vacuum heating pump which just recently has been placed on the market for small jobs. Also, it has been placed on the market for the purpose of correcting circulation in existing systems which can be converted to vacuum operation. It is new in respect to several features but is basically a modification of a standard pump incorporating the same means of creating a vacuum. Where returns are high, this unit can be installed on the boiler room floor. Where the returns are at the floor line, the pump may be installed in a pit which will allow gravity drainage from the basement radiation and the wet returns. The return inlet connection is located directly in the mounting cover. The



cover is provided with a heavy gasket and is designed to be gas-tight. The pump is the conventional centrifugal type and is mounted rigidly to the motor frame. The pump is provided with a special shaft seal, while the bearings are of the sealed self-lubricating type designed with ball-thrust and guide bearings. The basin or mounting cover is hinged to permit easy access to interior of basin. This equipment is designed to handle all water of condensation up to 200 deg. Fahr., with a maximum vacuum of 25 in. of mercury with a circulating water temperature of 90 deg. Fahr. A vacuum receiver or accumulator is provided on the under side of the basin cover with a water sealed check valve for the release of return water directly to the pump basin when operated as a gravity condensation pump. Insley Engineering Corp., 801 No. Olney Street, Indianapolis, Ind., is the manufacturer.



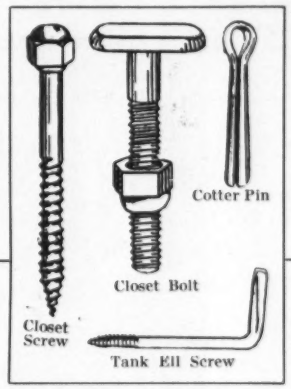
## New Dental Lavatory

The accompanying illustration shows a new dental lavatory which has just been announced. It has been made 12 in. by 12 in. in size with the idea of permitting its installation in nearly all existing bathrooms and in every new home. It is made of vitreous china and has an integral open strainer and a compact hot and cold water supply fixture. Crane Company, 836 So. Michigan Ave., Chicago, Ill. is the manufacturer.

## Improvement in High Pressure Union

A basic improvement in high pressure union design for steam, oil, gas, water and air lines is claimed for the new product illustrated in the accompanying photograph. This


KEEP THEM HANDY




HINDLEY'S PLUMBERS' SPECIALTIES

Place your 1934 order for plumbers' specialties NOW . . . if you haven't already attended to it . . . and if you are concentrating on lines which give you the most for your money in quality material and workmanship, then we know you will want HINDLEY'S.

Have them constantly on hand so that when government building gets under way and remodeling and replacement work begins to "pop" all around you, they will be where you want them.

Check your inventory NOW. Let us know your wants. We can take care of you immediately. See our line in the Domestic Engineering Plumbing and Heating Catalog.

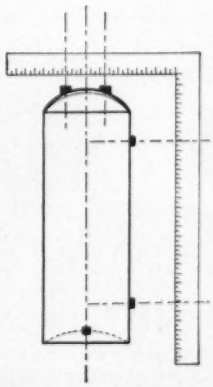
HINDLEY MFG. CO., VALLEY FALLS, R. I.

*"Pigs May Be Pigs," But—*

there are Galvanized Boilers--and there are RIVERSIDE GALVANIZED BOILERS

There is a difference. Riversides are backed by nearly a half century of fine boiler making . . . backed by quality, experience and nationwide acceptance and *built* by a manufacturer who knows how to build boilers to meet the most exacting specifications.

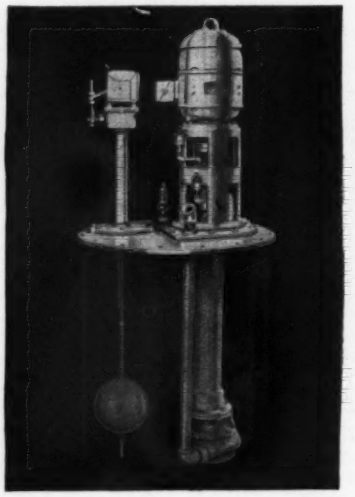
"Steel Square" Construction



Long ago Riverside discarded the "rule of thumb" method for putting in and tapping spuds. Heads and bottoms of Riversides have integral spud construction, eliminating possible water leakage through the spuds. Side spuds, top and bottom spuds are accurately tapped by specially designed modern machines. None but perfectly aligned spuds at right angles are the result. The elimination of cock-eyed spuds insures an installation you will be proud of. And your customer will say "There's the job of a real mechanic".

*Attractive two-color mailing piece entitled "Pigs may be Pigs" but RIVERSIDE Galvanized Boilers are NOT Just Boilers," will be sent with your imprint, free of charge. Slip them in your invoices and they will "pep up" your sales.*

RIVERSIDE BOILER WORKS, INC.
CAMBRIDGE (*Since 1889*) MASS.



DEPENDABLE because—

As in the case of every AMES PUMP, it is specially designed to meet the particular conditions of service for which intended.

The Ames Sump Pump, pictured above, has been carefully designed to render the most efficient pumping service against low, medium, or high heads in the handling of condensate, sewage, and liquids containing high percentages of solids.

A characteristic of this pump is the combined thrust and radial bearing located well above the floor plate level where it is readily accessible and free from damage by water leakage.

WRITE FOR BULLETIN NO. 1200

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**AMES PUMP COMPANY, INC.**

30 CHURCH STREET • NEW YORK, N. Y.

*Manufacturers of vacuum heating, condensate, centrifugal pumps, and fuel oil pumping-heating units*

**Division of American Locomotive Company**

Representatives in all principal cities. Products manufactured and sold in Canada by Montreal Locomotive Works, Ltd.

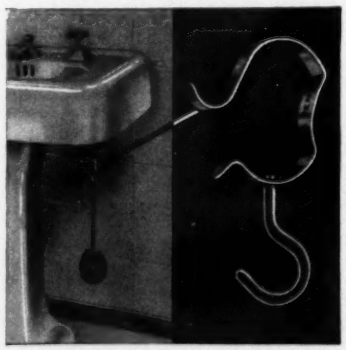
union has two serrated ends, one hard and the other soft, which are designed to form four distinct seats. These unions are made both in black and cadmium plated. The seat is housed away from the runway. The United Superior Union Company, 29 Ryerson Street, Brooklyn, N. Y. is the manufacturer.

## A New Stop And Waste

Here is a new stop and waste which is being offered as having several improved features over a previous product made by the same manufacturer. The stuffing box nut is described as being heavier and larger with the idea of preventing the possibility of leaks. The bonnet construction is heavier than that of the previous model. Also the body has been made heavier to resist the twisting action of the wrench. In addition, this valve is described as having larger and heavier hexes on the pipe ends, extra threads, and a bevel for easy starting, and extra large waterways. The Cleveland Brass Manufacturing Company located at 4606 Hamilton Ave., Cleveland, Ohio, is the manufacturer.

## Household Hook With Spring Clasp

Here is a household hook combined with a spring clasp which is designed to snap on any pipe, rack or faucet where a hook is needed. It can be snapped on the supply pipe under



the lavatory to take care of a floor cloth, a bowl brush or a short handled mop. It has just recently been placed on the market by Scovill Manufacturing Company, Plumbers' Brass Goods Div., Waterville, Connecticut.

# THE TRADE

*News of what plumbing and heating contractors are doing the country over*

## H. P. A. C. C. National Association Will Hold One Day Meeting

A special one-day meeting of the Heating, Piping and Air Conditioning Contractors National Association will be held at the Ambassador Hotel in Atlantic City, New Jersey, on Monday, January 8, 1934. The sessions will begin at 9:30 a. m. and continue until the business of the meeting has been completed. The purpose of the meeting is to amend the By-Laws and to discuss matters relating to code administration so that the Code of Fair Competition for Heating, Piping and Air Conditioning Contractors will be administered uniformly throughout the country.

The one-day meeting on Monday will permit members to use the week-end excursions on the railroads, which give a round trip rate of 1¼ times the single fare. Those who wish to stay longer can obtain ten-day excursions on which the round trip rate is 1⅓ times the single fare.

The board of directors will meet on Saturday, January 6, at 10:00 a. m. at the Ambassador Hotel, Atlantic City.

There will also be a meeting of local secretaries.

The meeting on Monday will be open sessions and any heating, piping and air conditioning contractors who may be interested will be welcome to attend all sessions.

## New York Master Plumbers Will Meet in New York City

The New York State Association of Master Plumbers will hold its annual convention in New York City in April, probably the 24th and the 25th. Hotel headquarters have not yet been selected.

## Texas Master Plumbers Will Meet in Galveston

The Associated Master Plumbers of Texas will hold their annual convention April 16 and 17, 1934, at Galveston, Tex., with headquarters at the Buccaneer Hotel. The convention committee consists of A. J. Witt, chairman; T. F. Fisher, H. I. Davis, T. J. Smith and A. J. Warren.

## Ohio Master Plumbers to Meet in Toledo

The Ohio State Association of Master Plumbers will hold its 43rd annual convention at the Commodore Perry Hotel, Toledo., O., on February 5, 6 and 7. Chairman of the General committee is N. S. Larsen, Toledo. Oliver Hoffman of Akron is president, Howard C. Baker of Toledo, vice president and Eb. Ellen of Cleveland, secretary and treeasurer.

## Encouraging Greetings from President Barrett

Robert J. Barrett

Our participation in the Recovery Plan of President Roosevelt, principally in our attempt to codify our industry under the Industrial Recovery Act, has been most engrossing. This is substantially due to the fact that our problem has been three-fold.

First, the writing of a code of fair competition that would solve our major problems and still be acceptable to the National Recovery Administration;

Second, the vertical correlation of our code with the codes of the wholesalers and manufacturers of our industry; and

Third, the horizontal correlation of our code with that of the construction industry.

While our problems have not been solved, there are now signs of encouragement on the horizon of the organized master plumber. I believe it would be fitting, therefore, to pause in our many activities at this time and express the customary greetings of the Christmas Season and extend hopeful wishes for the New Year.

I sincerely believe that the outlook for the organized master plumber for 1934 is encouraging. I believe this principally because we are a great people, living in a great country, during great times.

I take this opportunity to express my sincere and grateful appreciation for the loyal and efficient co-operation that has been given me by our many affiliates. I trust that the New Year will bring them health and happiness as well as their full share of benefits that will result from the improved conditions that we are all striving so hard to attain.

ROBERT J. BARRETT,
President, National Association of Master Plumbers of the United States, Inc.

## Indiana Master Plumbers Will Meet in Indianapolis

The Indiana Master Plumbers' Association will hold its 1934 convention in Indianapolis. The selection of the dates and headquarters will be made later.

## Kansas Master Plumbers May Meet March 12

The board of directors of Kansas Master Plumbers' Association held a meeting December 10, at which it was tentatively decided to hold a one-day convention of this association on March 12, 1934, at Wichita, Kansas.

## St. Louis Plumbing Contractors Elect Officers

The Contracting Plumbers' Association, Inc., of St. Louis, Mo., held its annual meeting recently and elected the following officers for 1934: President, Robert Hunt; vice president, Roger E. Jarvis; secretary, D. C. Cunningham; treasurer, Henry Bartosch; board of directors: Charles Burgess, Sam Burman, Jos. T. Sheehan, Bernard Braun and Ed. Gallagher. The installation of the new officers will be held early in January.

## S. Dakota Retail Plumbers Hold Special Meeting

The South Dakota Retail Plumbers' Association held a special meeting at the Marvin Hughitt Hotel in Huron, S. Dak., Tuesday, December 12.

The meeting was called by President C. E. Carlson to acquaint the members throughout the state with the progress being made by the National officers and the other officials regarding the codes connected with the industry.

Clifford F. Smith of Sioux Falls, state executive for the N. A. M. P. Sub-Committee on NRA, gave a report on the NRA activities, going into detail about what has been accomplished and the aims to be attained.

A round table discussion on the rules of the Public Works Program was led by Mr. Carlson.

The Association went on record as being in favor of giving National President Robert J. Barrett authority to sign the Code of Fair Competition.

There was a good attendance, and an enthusiastic meeting resulted. The eastern half of the State was particularly well represented.

The meeting adjourned, to meet at the regular state convention, which is to be held at the Cataract Hotel in Sioux Falls, S. Dak., January 16 and 17. The Associated Contractors Convention will be held at the same time and at the same place.

## Arkansas Master Plumbers Will Meet in Little Rock

The Arkansas State Master Plumbers' Association will hold its annual convention in Little Rock, Ark., with headquarters at the McGehee Hotel, sometime in April, 1934. The exact date will be announced later.

## Plans Finished for Illinois Convention

The Master Plumbers' Association of Quincy, Ill., has finished its preparation for the annual convention of the Illinois Master Plumbers' Association, which is to be held in that city, with headquarters at the Lincoln-Douglas Hotel, on January 16, 17 and 18. Plans have been made for the attendance of at least 600 members. Seward Best of Quincy is general chairman of the convention, and William J. Lang of Chicago is chairman of the entertainment committee.

## Florida Master Plumbers Will Meet at Gainesville

The Florida State Association of Master Plumbers and Heating Dealers, Inc., will hold its next annual convention May 7 and 8, 1934, at Gainesville, Florida, with headquarters at the Graham Hotel.

## Kings County Masters Hold First Annual Dinner

The Kings County Master Plumbers Association, Inc., held its first annual dinner on Saturday evening, December 16, at Aperion Manor in Brooklyn, N. Y., with an attendance of approximately 400, including master plumbers, jobbers, manufacturers' representatives, and their wives. An exceedingly elaborate dinner was served. That the affair proved such a pleasant success was due to the careful planning and arrangement on the part of the officers and the various committees, as follows:

President Alex Rotker, Vice President Ben Stone, Treasurer Albert A. Klein, Recording Secretary Louis Friedman, Financial Secretary Albert Fisher, Sergeant-at-Arms Harry Weiss.

Arrangement committee: Sol Weithorn, Louis Molinary and Ben Posner.

Reception committee: Alex Rotker, Albert A. Klein and Jos. S. Byrne.

Floor committee: Albert Fisher, Louis Rushwald and Harry Weiss.

Entertainment committee: A. A. Kline, L. Molinar, L. Friedman, S. Weithorn, E. H. Ruskin, A. Fisher, L. Rushwald and H. Walker.

**The first annual dinner of the Kings County Master Plumbers Association, Inc., held December 16, at Aperion Manor in Brooklyn, N. Y.**

## President R. J. Barrett Announces His Standing Committees

President Robert J. Barrett has just announced the appointments of the following standing committees of the National Association of Master Plumbers for the period of his administration:

APPRENTICESHIP: Robert H. Pflug-Felder, chairman, Philadelphia, Pa.; James O. Lewis, Newark, N. J.; William E. Wolff, Clarendon, Va.; C. V. Swan, Huntington, W. Va.; D. A. Mayfield, Jacksonville, Fla.

CONFERENCE: Francis C. Dorsey, chairman, Baltimore, Md.; Joseph A. High, Washington, D. C.; Joseph G. Hayes, Indianapolis, Ind.; Sam A. Rice, Oklahoma City, Okla.; Gustav Limberg, Memphis, Tenn.

SCHOLARSHIP: John J. Vogelpohl, chairman, Cincinnati, Ohio; John P. McCoy, Fond du Lac, Wis.; Richard J. Welch, Lowell, Mass.; Jere Sheehan, Jr., St. Louis, Mo.; Robert J. Barrett, Washington, D. C.

STANDARDIZATION: Jere L. Murphy, chairman, New York, N. Y.; Joseph H. Bilheimer, Jr., Little Rock, Ark.; Chas. J. Ormond, San Antonio, Texas; R. W. Timmons, Richmond, Calif.; Walter J. Widmer, Portland, Oregon.

PLUMBING AND HEATING INDUSTRIES COMMITTEE: E. B. Kleine, president, Cincinnati, Ohio; Robert J. Barrett, Washington, D. C.; John J. Calnan, Chicago, Ill.; P. W. Donoghue, Boston, Mass.

In announcing these appointments, President Barrett made the following statement: "The standing committees of the National Association carry on highly important work. It has been the activities of these committees that has also substantially increased the prestige of the National Association, added to its value of membership, and contributed substantially towards its growth. The work of our standing committees has played no small part in developing the National Association into the largest and oldest association of master craftsmen in the United States."

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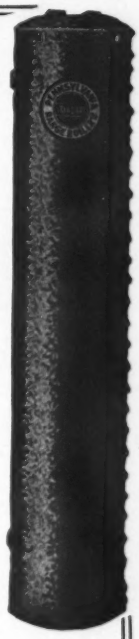
## Membership in H. P. A. C. C. N. A. Continues to Increase

The increase in membership in the Heating, Piping and Air Conditioning Contractors National Association, which started with the passage of the National Recovery Act in May, continues, 177 new members having been added to the rolls of the association. Six new local associations have been formed: The Heating and Piping Contractors East Bay Association in California with a membership of 13; the Heating, Piping and Air Conditioning Contractors Denver Association with a membership of 10; the Heating and Piping Contractors Worcester Association with a membership of 12; the Heating, Piping and Air Conditioning Contractors Rhode Island Association with a membership of 22; the Heating and Piping Contractors Nashville Association with a membership of 8; and the Heating and Piping Contractors Association of Northeastern Massachusetts with a membership of 11. In addition to these 76 members who are affiliated with these new local groups, there are 101 additional members, many of whom are affiliated with local associations of long standing.

The 177 new members come from eighteen states and the District of Columbia and are distributed as follows: Alabama 1; California 23; Colorado 12; Connecticut 28; District of Columbia 2; Illinois 1; Indiana 3; Kentucky 2; Maryland 2; Massachusetts 29; Missouri 4; New Jersey 1; New York 20; Ohio 1; Rhode Island 22; Tennessee 13; Vermont 1; Virginia 1; and Wisconsin 11.

This increase in membership in the Association indicates very definitely the faith which heating contractors have in the National Association and their belief in its ability to serve them well through the recovery program.

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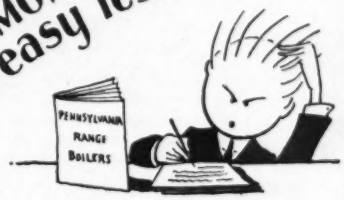


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2. Recommend the best boiler that money can buy—a quality boiler, regularly priced—like PENNSYLVANIA.

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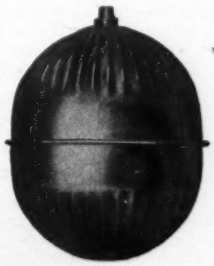
FOR CERTAIN PERFORMANCE
**REICHERT**
TANK BALLS and TANK FLOATS



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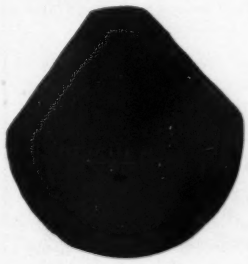
Tank Balls and Tank Floats, "be they ever so humble" are making money for many a smart contractor. Show them — talk them—and you're bound to sell them.

The REICHERT LEADER Tank Ball is constructed so as to make a perfect seat at all times, of materials that will stand up under the most severe service, and will make a profit for you that reaches a new "high" in tank balls.

For the severe service that beats down an ordinary tank float, use LEADER TANK FLOATS. They give unequalled service.

Write for full details.



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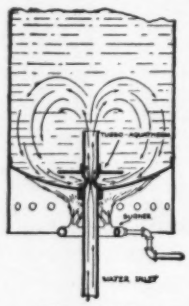
*Two Great Inventions*

**The TURBO and Aquatherm DAHLQUIST PATENTS**



THE TURBO

*The new Dahlquist patent which prevents mud from accumulating in the hot water boiler.*

The TURBO stops sediment from ever forming in the hot water boiler.
The AQUATHERM gives quicker Hot Water—saves gas.
No other metal can take the place of Copper for storing Hot Water. Copper never rusts or deteriorates. But regardless of the metal used, sediment in the water will form a coating of mud on the bottom of the boiler unless it is equipped with Theodore W. Dahlquist's latest invention—the TURBO.
The TURBO, Theodore W. Dahlquist's latest invention, prevents sediment from forming on the boiler bottom — reduces cost of gas — prevents costly burnouts — and keeps hot water clean.

SAVES GAS

Turbo Super Aquatherm Gas Underfire

The patented Turbo and Aquatherm placed in all Dahlquist boilers raises the temperature of the water much faster, uses 50% less gas, gives a continuous supply of crystal clear, fresh, sediment-free hot water day and night.

**Write for Particulars**

*Architects & heating engineers may rely entirely on Dahlquist workmanship and experience, whether for range boilers, automatic storage boilers or heavy pressure boilers.*

**DAHLQUIST MFG. COMPANY**

50 West 3rd St. So. Boston, Mass.

**IT CAN "TAKE IT"**

IT WAS the bull-dozing strength of the RIDGID that first won it popularity among plumbers and steamfitters. When other wrenches smashed up on a tough job, RIDGID came thru without a scratch.

But it has 7 other good points: full-floating hook jaw, won't bend or break; pipe scale on jaw; replaceable heel jaw; instant grip and let-go, no slip, no locking; easy turning adjusting nut in open housing; double strength I-beam handle; handy hang-up hole. Try one—see for yourself.

**4 Other Unusual RIDGID Tools**

Cutter with thin tool steel blade, 300% more cuts. Vises with no-mar jaws for nickel pipe. Dies that thread 4 sizes of pipe with same set of chasers. Ask your jobber.

The Ridge Tool Co., Elyria, O., U. S. A.

**RIDGID**

**PIPE TOOLS**

## Philadelphia Master Plumbers Hear Annual Reports

The Master Plumbers' Association of Philadelphia, Pa., held its regular monthly meeting December 7, with President George M. Hicks in the chair. After the reading of the report of the previous meeting he asked the various committees for their reports.

Reporting for the membership committee, Walter Raid said in part: "The year 1933 was one of progress for our association. During the membership drive it was very gratifying to see the results of the efforts put forth. While we have lost some members by death and for other reasons, we have held our own. If every member would do his bit, much could be accomplished. What we need is more co-operation and more man power to carry on and realize our association ideals."

Edward Quaid reported for the gas committee, referring to the many meetings held during the past year and to the benefit and training that was obtained from the Philadelphia Gas Works Co. in connection with its co-operation with 42 dealers in various parts of the city. He also told how well the meetings have been attended, more than 300 being present on the evening set aside as Ladies' Night by the master plumbers and the gas company. He also submitted figures, which he had received from G. W. Schock of the Dealer Division of Philadelphia Gas Works Company, showing that the sales made by cooperative dealers from January 1 to November 1 were as follows:

| | | |
|---|---|---|
| 478 | Water Heaters | $ 47,000 |
| 700 | Gas Ranges | 50,000 |
| 565 | Gas Refrigerators | 100,000 |
| 52 | House Heating Jobs | 15,600 |
| 40 | Gas Radiator Jobs | 20,000 |
| 25 | Miscellaneous Appliances | 1,000 |
| Total 1,860 | Appliances | $233,600 |

If all master plumbers in Philadelphia presented a report of their sales of gas appliances, the amount would no doubt exceed $1,000,000, proving that the master plumber is a salesman. He urged all master plumbers to do more selling, since it proves to be a mighty profitable way to increase business.

Nomination for officers for the coming year, to be voted for at the January meeting, were then made as follows:

President, George M. Hicks; vice presidents, Harry L. Stilwell, Walter Raid, Howard Neilson, Edw. F. Quaid, Wm. F. Boal, Eugene Quinlan; secretary, Robert H. Pflug-Felder; treasurer, George Moeller; sergeant-at-arms, Elwood Mackay.

Board of directors: George F. Uber, Harry L. Righter, Philip Hering, Charles Rapp, John F. Naegle, William Sheppard, James Soehle, Benjamin Landau, Edward Gannon, Edward Toy, Yern Jorgenson, R. Allen, Wm. Frey and Edw. Rinear.

Harry L. Stilwell gave a talk on overhead, and F. J. McNasby of the Standard Wall Covering Co. of Philadelphia gave a talk on his company's products.

## Thomas J. Sheehan Appointed Collector of Revenue

Thomas J. Sheehan, the well known master plumber of St. Louis, Mo., has been appointed to the office of Internal Revenue Collector of St. Louis, Mo. United States Senators Bennett Champ Clark and Hawes of Missouri concurred in the appointment. Mr. Sheehan's establishment is located at 2233 Olive Street and he has for years been very active in association affairs. He has also taken an active part in civic and political affairs and has served as police commissioner for St. Louis.

## National Vice President Calnan Heads P. & H. Industries Bureau's Finance Committee

E. B. Kleine of Cincinnati, Ohio, president of the Plumbing and Heating Industries Bureau, has appointed John J. Calnan of Chicago as chairman of the emergency finance committee of the Plumbing and Heating Industries Bureau. Mr. Calnan is vice president of the National Association of Master Plumbers. The other members of this committee are: Walter J. Kohler, president of the Kohler Company; Charles K. Foster, vice president of the American Radiator Co.; H. W. Seymour, vice president of Crane Co.; W. C. Beschorman, vice president of the National Lead Co.; John J. Kennedy, vice president of the National Tube Co., and Martin Weil, vice president of the Weil-McLain Co.

Mr. Kohler is chairman of the Joint Coordinating Committee representing the five plumbing fixture associations operating under one code, and he maintains that manufacturers and wholesalers should not make the mistake of cutting off such vital functions as publicity, because it helps to create a market for plumbing and heating products.

Approximately 30 associations of manufacturers, wholesalers and contractors are being asked to assist in the financing of the publicity program for the industries as carried on by the Bureau. The Central Supply Association has voted to subscribe $500 in 1934 for this publicity work by the Bureau, and it was the first association to vote its approval of the new plan of financing publicity for the plumbing and heating industries by subscriptions made by associations of manufacturers, wholesalers and contractors.

## Chicago Plumbing Contractors Hold Annual Meeting

The Plumbing Contractors Association of Chicago held its annual meeting at the Great Northern Hotel in that city on Friday evening, January 5. After partaking of a fine dinner, the business session was opened and the final reports of the association's activities during the past year were presented.

The following officers were elected and installed to serve during 1934:

President, Charles E. Gawne; vice president, Thomas F. Hanley, Jr.; treasurer, Henry P. Reger; directors: Henry O'Callaghan, Marcus Weil, Michael Mele, A. J. F. Lowe, Henry Swade, John J. Calnan, E. W. Kaiser and T. W. Merryman.

Coupled with the excellent work of the state and local officers the NRA no doubt stimulated interest in the association and helped to increase the membership. There are now approximately 400 members in the Chicago Association.

President Gawne, who was re-elected, was presented with a diamond ring in appreciation of his efforts, and Henry Swade, who retired as president a year ago, was also presented with a testimonial from the association.

## Wilmington Master Plumbers Hold Annual Meeting

The Master Plumbers' Association of Wilmington, Del., held its annual meeting and dinner recently and elected the following officers for the ensuing year: President, Herbert F. Weldin; vice president, Wm. Dorsey; treasurer, Fred Ponsell, and executive secretary, Harry Bell.

The speakers of the evening were Willard A. Speakman, president of Speakman Co., Wilmington, Del., and Jos. J. Crotty, vice president of Central Foundry Co., New York City. Mr. Speakman spoke about business conditions in general, and Mr. Crotty delivered an address on "What the Master Plumber Means to His Community."

The dinner and the meeting were held in the Y. M. C. A. building and were well attended owing to the careful planning of the committee on arrangements, which consisted of Executive Secretary Bell, Plumbing Inspector Walter Smith, Joseph Rapuano and William Morris.

## Many Master Plumbers Join Texas Association

R. G. Thomas of San Antonio, Texas, executive secretary of the NRA Subcommittee of Texas, has just announced a most gratifying increase in membership in the Associated Master Plumbers of Texas, Inc. Reports have been received of additions of new members from the following cities: Houston, Fort Worth, Dallas, Mineral Wells, Weatherford, Wichita Falls, Merceds and Point Isbel. These additions give the Texas Association a membership of 280.

## Pittsburgh North Side Plumbers Re-elect T. F. Scanlon

T. F. Scanlon

The Merchant Plumbers' Association of the North Side and Vicinity in Pittsburgh, Pa., held its annual meeting in the Carnegie Hall on December 13 and re-elected T. F. Scanlon president for the fifth time. The other officers were also re-elected as follows: Vice president, G. O. McMurray; secretary-treasurer, Frank Brunner; sergeant-at-arms, Harvey Mushrush. The following members of the board of directors were re-elected: Walter Ackley, Charles Brubach, Earl Schumacher and G. O. McMurray, while R. J. Michaels was elected for the first time, being the only new member added to the official personnel of the association. This organization is one of the most active in the state, due to the energetic leadership of Mr. Scanlon. Its membership consists of 38 firms of the North Side and the North Boroughs. Mr. Scanlon is also serving as secretary of the Master Plumbers' Association of Pittsburg and vicinity.

## New M. P. Associations in New Jersey

The four following associations of master plumbers have recently been organized in the state of New Jersey, with the officers indicated:

The Vineland Master Plumbers' Association at Vineland, N. J.; President, Charles Figerole; vice president, Raymond Arbuckle; treasurer, Ralph Heritage, and secretary, Wm. J. Large.

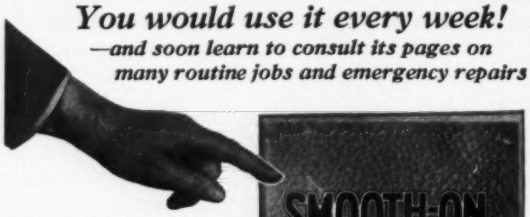
The Master Plumbers' Association of Millville, N. J.; President, Jacob Rechstiner, Port Elizabeth; vice president, Wm. Troih; treasurer, Harry Welsh, Millville; secretary, H. M. Snook, Milville; executive committee: Thomas Moore, William Fagin and A. Bullock.

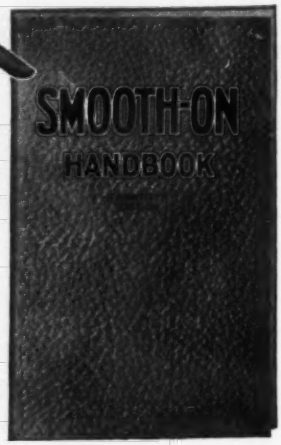
The Master Plumbers' Association of Burlington County, N. J.; President, John F. Kelly, Riverside; vice president, George Friday, Jr., Riverton; treasurer, George Orfe, Riverside, and secretary, John Hullings, Riverton.

The Master Plumbers' Association of Bridgeton, N. J.: President, Frank Burton; vice president, Boyd R. Horner; treasurer, Percy Harris, and secretary, I. Burton Custer; board of directors: Orville Layman, H. Porter and Burton Harper.

***You would use it every week!***

***—and soon learn to consult its pages on many routine jobs and emergency repairs***



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The methods outlined will save time and labor under many pipe line and power plant conditions and represent the very best practice.

With Smooth-On in your store room and this booklet on your desk, you will be ready for prompt and effective attention to many emergencies.

*Get the booklet from us and get Smooth-On No. 1 in 1- or 5-lb. tin or 25- or 100-lb. keg from your nearest supply house, or if necessary, from us direct.*

**Smooth-On Mfg. Co., Dept. 12, Jersey City N. J.**

***Do it with* SMOOTH-ON**

A L W A Y S D E P E N D A B L E

*We took*

OUR CUE FROM A TREE!

• Growing ring upon ring of sturdy wood, the tree is a perfect example of LAMINATED construction. This same principle of construction is used in Brunswick Whalebone-ite Seats. It helps them defy the slam-bang abuse of the public . . . *install them once—they last forever!*

THE BRUNSWICK-BALKE COLLENDER CO.
623-33 South Wabash Avenue, Chicago, Illinois

*Brunswick*
WHALE-BONE-ITE SEATS


# The Old Metal Market

**New York**
(Dealers' Buying Prices, Cents a Pound)

| | | | |
|---|---|---|---|
| No. 1 Heavy copper and wire | 5.87½ | to | 6.12½ |
| Light copper | 5.12½ | to | 5.37½ |
| Heavy yellow brass | 3.37½ | to | 3.62½ |
| Clean light brass | 2.87½ | to | 3.12½ |
| New brass clippings | 4.62½ | to | 4.87½ |
| Zinc | 2.25 | to | 2.50 |
| Aluminum turnings, borings | 4.25 | to | 4.50 |

**Pittsburgh**

| | | | |
|---|---|---|---|
| Crucible copper | 6.12½ | to | 6.25 |
| Heavy copper and wire | 5.50 | to | 5.75 |
| Light copper | 5.12½ | to | 5.37½ |
| Red brass (No. 1 Comp.) | 5.25 | to | 5.37½ |
| New brass clippings | 4.50 | to | 4.75 |
| Cocks and faucets | 3.37½ | to | 3.62½ |

**Cincinnati**

| | | | |
|---|---|---|---|
| Crucible copper | 6.25 | to | 6.50 |
| Heavy copper and wire | 5.75 | to | 6.00 |
| Light copper | 5.00 | to | 5.25 |
| Red brass | 5.00 | to | 5.10 |
| Heavy yellow brass | 3.25 | to | 3.50 |
| Light brass | 2.25 | to | 2.50 |
| New brass clippings | 4.75 | to | 5.00 |
| Scrap zinc | 2.25 | to | 2.35 |
| Block tin | 42.00 | to | 44.00 |

**Cleveland**

| | | | |
|---|---|---|---|
| Crucible copper | 6.25 | to | 6.50 |
| Heavy copper and wire | 5.50 | to | 6.00 |
| Light copper | 5.00 | | |
| No. 1 Composition red brass | 4.75 | to | 5.25 |
| Heavy yellow brass | 3.50 | to | 3.75 |
| Light brass | 2.75 | to | 3.00 |
| New brass clippings | 5.00 | to | 5.25 |
| Cocks and faucets | 4.00 | to | 4.25 |
| Zinc | 2.25 | to | 2.50 |
| Block tin pipe | 43.00 | to | 45.00 |
| Solder joints (close cut) | 6.00 | to | 6.50 |

**Chicago**

| | | | |
|---|---|---|---|
| No. 1 Heavy copper and wire | 5.87½ | to | 6.12½ |
| No. 2 Heavy copper and wire | 5.25 | to | 5.62½ |
| Light copper | 4.62½ | to | 4.75 |
| No. 1 Composition red brass | 4.50 | to | 5.00 |
| Heavy yellow brass | 3.37½ | to | 3.62½ |
| Light brass | 2.87½ | to | 3.12½ |
| New brass clippings | 4.75 | to | 5.00 |
| Cocks and faucets | 3.75 | to | 4.00 |
| Old zinc | 2.12½ | to | 2.37½ |
| Solder joints (close cut) | 4.50 | to | 5.00 |
| Block tin pipe | 36.00 | to | 38.00 |

**St. Louis**

| | | | |
|---|---|---|---|
| Crucible copper | 5.50 | to | 6.00 |
| Heavy copper and wire | 5.25 | to | 5.50 |
| Light copper | 4.50 | to | 4.75 |
| No. 1 Composition red brass | 4.75 | to | 5.00 |
| Light brass | 2.50 | to | 2.75 |
| New brass clippings | 4.25 | to | 4.75 |
| Zinc | 2.25 | to | 2.50 |
| Block tin pipe | 35.00 | to | 37.00 |
| Solder joints (close cut) | 4.00 | to | 4.50 |

**Detroit**

| | | | |
|---|---|---|---|
| Crucible copper | 6.00 | to | 6.25 |
| No. 1 Heavy copper and wire | 5.25 | to | 5.50 |
| Light copper | 4.75 | to | 5.00 |
| Red brass (No. 1 comp.) | 4.50 | to | 4.75 |
| Heavy yellow brass | 3.25 | to | 3.50 |
| Clean light brass | 3.00 | to | 3.25 |
| New brass clippings | 5.00 | to | 5.25 |

## South Dakota Retail Plumbers Will Meet January 16 and 17

The South Dakota Retail Plumbers' Association will hold its annual convention in Sioux Falls, S. Dak., on Tuesday and Wednesday, January 16 and 17, 1934. The South Dakota Contractors' Association will hold its annual convention in that city on the same days, and the retail plumbers will probably attend some of the sessions of that convention.

## L. I. Master Plumber On Trip to Jerusalem

Louis Light, who conducts a plumbing and heating establishment at 134-11 to 134-19 Brookville Boulevard, Rosedale, Long Island, N. Y., is at the present time on a trip to Jerusalem, Palestine, where he will take a well earned vacation and visit his daughter, Ruth, who is studying art in that city. Mr. Light sailed November 11 on the steamer "Rex" and expects to return home late in January or early in February.

Louis Light

## Western Trade Golf Association Elects Officers

The Western Trade Golf Association concluded a successful season with its annual dinner meeting at the Bismarck Hotel, Chicago, on December 7, with a meeting which attracted more than 70 members and guests, making it one of the largest annual meetings in the history of the association. J. H. Milliken, retiring president, directed the business and entertainment features of the evening. The following officers were elected: G. H. Dickerson, president; C. E. Price, vice president; R. M. Getschow, captain; W. H. Lotts, handicapper; E. W. Rietz, treasurer; W. A. Taylor, secretary. This dinner meeting was in charge of the following committee on arrangements: J. P. Kiely, W. G. Young, E. W. Rietz.

This year the association was served by the following nominating committee: C. E. Barrows, L. Narowetz, J. C. Matchett, L. W. Washington, R. M. Getschow, M. G. Henderson, G. A. Turner, E. P. Heckel, T. A. Callaghan and W. H. Lotts. The auditing committee consisted of H. W. Mollison, W. A. Taylor and F. R. Kilner.

## Domestic Engineering Plumbing and Heating Catalog for 1934—Ready

The eleventh edition of Domestic Engineering Plumbing and Heating Catalog, 966 pages, 8½x11 inches, has just been issued. This is the standard reference book for the trade for 1934, and it is even better than its predecessors, containing as it does several new and valuable features, which make it very handy for quick reference. Its contents are divided into the following sections: 1. Alphabetical list of manufacturers represented in catalog section; 2. Manufacturers' catalogs; 3. Tables, rules and charts; 4. Classified section with lists of more than 1300 items used in the plumbing and heating trade. Under each heading is given the addresses and the names of the manufacturers, who make the items, and their trade names. 5. A complete list of manufacturers, more than 4,000, who make items used in the plumbing and heating industry. The price is $7.50 a copy, but readers who act without delay, can secure a copy for $5, if their check or money order for that amount is received on or before Jan. 15, 1934. All orders should be sent to the publisher, Domestic Engineering Co., 1900 Prairie Avenue, Chicago.

# Obituaries—

## Charles F. Murphy

Charles F. Murphy, member of the plumbing and heating firm of J. L. Murphy, Inc., at 340 East Forty-fourth Street, New York City, died at his home in the Bronx on Christmas day after two months' illness of heart disease, in his 63rd year. Mr. Murphy was born in Ireland and came to New York in his childhood. He was a member of the Manhattan Master Plumbers' Association, and his firm has installed plumbing and heating systems in some of the largest buildings in the country. He is survived by his wife, four sons, and his brother, Jere L. Murphy, the senior partner in their plumbing business.

## August Hansen

August Hansen, one of the best known members of the Manhattan Branch of the Greater New York Master Plumbers' Association, died suddenly on November 28 while sitting in his chair in his office at 168 Lexington Avenue, New York City, in his 71st year. Having finished his noon meal, he walked downstairs to his shop, and there he was found dead a few minutes later. Mr. Hansen was born in New York City in 1863, educated in the public schools of that city, and spent more than 50 years in the plumbing business there, the last 25 years as a master plumber. He was very active in association affairs and attended every meeting not only of Manhattan but also of Brooklyn association. His wife and three daughters survive him.

## Martin Meagher

Martin Meagher of Burlington, Vt., died recently at his home in that city in his 83rd year. He had been actively engaged in the plumbing, heating and sheet metal business in Burlington for the last 55 years.

## Robert J. Hoben

Robert J. Hoben, who conducted a plumbing business at 258 South Van Pelt Street, Philadelphia, Pa., for many years, died at his home in that city on Friday, December 1. He was an honorary member of the Master Plumbers' Association of Philadelphia, and was for years active in association affairs.

## B. J. Farwell

Barney J. Farwell, for many years engaged in the plumbing and heating business at 410 Sherman Street, Chicago, died at his home in that city on December 3, after having been in failing health for nearly two years. He was a member of the Chicago Plumbing Contractors Association and the Chicago Master Steamfitters' Association. He was born in Canada in 1869 and started in business in Chicago in 1897.

## Victor Wegelin

Victor Wegelin, a master plumber of Cincinnati, Ohio, died at his home in that city on Saturday, December 2, after a long illness. Mr. Wegelin had been engaged in the plumbing business 46 years and was a highly esteemed member of the Cincinnati Master Plumbers' Association The funeral took place on Tuesday, December 5, and among those in attendance were: John J. Vogelpohl, E. B. Kleine, Edward Frank, R. J. Cluxton and A. J. Murphy.

## Patrick H. Callahan

Patrick H. Callahan, honorary member of the Plumbing Contractors Association of St. Louis, Mo., died at the Jewish Hospital in that city on Thursday, December 21, of infirmities of age in his 85th year. Mr. Callahan was born in Ireland and came to St. Louis at the age of 5. He was a drummer boy in General Buell's Army of the Ohio, having

# ATTENTION BUYERS!

1934 will find plumbing and heating buying reaching a volume unheard of in recent years. Inflation, now close upon us, regardless of the manner in which it comes, always brings with it an unprecedented demand for real estate. A real estate demand increases new plumbing and heating buying, remodeling and replacement.

The government's $3,300,000,000 building program means that millions will be spent for water works and sewage disposal systems. Every one of these installations makes hundreds, sometimes thousands, of new prospects for plumbing and heating.

These conditions, with the many changes in manufacturing outlets which have taken place in the past few years, mean you need the 1934 PLUMBING & HEATING CATALOG more than ever.

By ordering it now, you can get it for $5.00, a saving of $2.50 over the regular price. You will want it eventually. Why not order it today and save $2.50?

**THIS OFFER EXPIRES JANUARY 15th, 1934**

**DOMESTIC ENGINEERING PLUMBING & HEATING CATALOG**

1900 Prairie Ave. Chicago


joined the Volunteer Infantry at the age of 13. After the Civil war he was one of more than 1,000 veterans who became members of Ransom Post. As chaplain of this post he had officiated at more than a thousand funerals. Now only three members of this post survive. Mr. Callahan was keenly interested in plumbing association affairs, and at social gatherings he was always a welcome guest. He will be remembered on such occasions for his recital of "Casey at the Bat" and other poems. Members of the St. Louis Association acted as pallbearers at his funeral and the officers of this organization were honorary pallbearers. His widow and several nephews and nieces survive him.

## New Officers of Local Associations

ALTOONA, PA.—Altoona Master Plumbers' Association: President, E. M. Fleming; vice president, John M. Suckling; secretary, L. A. Betting; treasurer, Ray L. Hiner.

BELOIT, WIS.—Beloit Master Plumbers' Association: President, Dan Osburn; vice president, F. S. Witte; secretary and treasurer, R. T. Morrill.

ELMIRA, N. Y.—Elmira Association of Master Plumbers: President, R. A. Dickson; secretary and treasurer, W. L. Barnes.

GLOUCESTER, MASS.—Cape Ann Master Plumbers' Association: President, Elliott W. Tarr; vice president, E. M. Law; secretary, G. E. Cameron; treasurer, L. W. Thurston.

CONNELLSVILLE, PA.—Connellsville Master Plumbers' Association: President, Frank P. Welker; vice president, F. A. Collins; secretary, M. A. Collins; treasurer, A. E. Vannatta.

FITCHBURG, MASS.—Fitchburg Master Plumbers' Association: President, D. S. Whooley; secretary, W. R. Illig.

HYANNIS, MASS.—Barnstable Master Plumbers' Association: President, Wm. E. Bearse, Centerville; vice president, Edwin P. Handy, Wellfleet; secretary, Horatio S. Bond, Hyannis; treasurer, Henry G. Phillips, Hyannis.

JOPLIN, MO.—Joplin Association of Master Plumbers: President, Patrick Law; vice president, E. Colson; secretary and treasurer, Fred Hamm, 1704 Main Street.

AUBURN, N. Y.—The Master Plumbers' Association of Auburn: President, R. O. Jones; vice president, Wm. J. Schoeffel; secretary, E. D. Conley; treasurer, C. A. Patrick.

# Questions—

**(Continued from Page 38)**

buckets are filled at the top and emptied at the bottom. Gravity pulls down the filled buckets which are heavier than the empty buckets. Accordingly, since all of the buckets are attached to the same conveyor belt, the empty buckets are carried up to the top when the filled buckets fall to the bottom.

To carry out this comparison, assume that the cold water at the top of the heating system represents the filled buckets and the hot water in the boiler and the supply piping represents the empty buckets. The piping represents the conveyor belt which causes all of the water to move if any portion of it rises or falls.

**How Would You Answer This Question?**

*In an air conditioning plant using ice for cooling, suppose that an even 100-lb. keg of ice is placed in the cooling chamber. When all of the ice is melted, will there be more or less than 100 lb. of water wasted to the drain?*

Answers based upon your experience, suitable, will be paid for and published in the March issue.

# New Trade Literature

### New Catalog of Iron Pipe

Republic Steel Corporation of Youngstown, Ohio, has just issued a new catalog entitled "Toncan Iron Pipe for Permanence," containing 64 pages of information about corrosion-resisting iron pipe, one of the products of this concern. Part 1 is given over to technical data and tests under various conditions, and Part 2 consists of a large collection of installations and service records in a wide variety of applications. The catalog is copiously illustrated with halftone engravings and it is printed in two colors on highly glazed paper, being a neat sample of the modern printer's art.

### "Heat Transmission"

"Heat Transmission," by William H. McAdams, professor of chemical engineering at the Massachusetts Institute of Technology, is a book of 383 pages, which has just been published by McGraw-Hill Book Co., Inc., New York City. It is sponsored by the Committee on Heat Transmission of the National Research Council, and it is designed to serve both as a text for students and as a reference for practicing engineers. The problem of heat transmission is encountered in almost every industry, and because of the diversity in the fields of application there exist countless differences in detail. However the principles underlying the problem are everywhere the same, and this book presents fundamentals rather than details of individual problems and special cases. A list of the headings of the various chapters, into which this book is divided, will give the reader some idea of its scope and character. The headings are: I, Conduction; II, Heating and Cooling of Solids; III, Radiation of Heat; IV, Dimensional Analysis; V, Flow of Fluids; VI, Introduction to Convection; VII, Fluids Inside Pipes; VIII, Fluids Outside Pipe; IX, Condensing Vapors; X, Heat Transfer to Boiling Liquids; Tables of Data. The price of the book is $5.

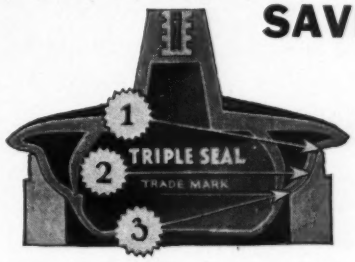
### Announces New Shallow Well Pumps

The Red Jacket Manufacturing Company of Davenport, Iowa, has just issued an announcement about the addition of two new shallow well pumps to its line of products. These new pumps have capacities of 350 and 500 gallons, and they have been designed to be sold at a low price level. The announcement also contains the information that this company's shallow and deep well pumps are now equipped with either gasoline engines or electric motors.

### Information About Automatic Water Heaters

EverHot Heater Company of Detroit, Mich., has issued a large circular, 24½x11 in., containing a large amount of general information about its line of automatic water heaters and heavy duty circulating heaters, accompanied by several illustrations showing their construction and operation. Special attention is given to the company's line of heavy duty circulating heaters, which are built for large storage tanks on installations where large quantities of hot water must be available. The No. 100 will handle up to 200 gallons additional storage and the No. 200 up to 400 gallons additional storage. Larger jobs can be handled by two or more of these heaters in battery on one tank. These heaters are a combination of the shell and tubular types. The heat generated by the burner is directed over the bottom boiler head before the hot gases travel up through the tubes or over the entire outside surface of the boiler. The tubes are equipped with cross fins, pressed in, which not only provide extended heating surface but assure the maximum scrubbing action of the heated gases the full length of each tube. The long narrow flueway surrounding the boiler assures the proper scrubbing action of that portion of the gases that is diverted to the outer flue area.


**BUY 3 DOZEN·· SAVE 90c**




You save for your customer . . . when you install the TRIPLE SEAL. Now save for yourself—by buying in three-dozen lots. The cost is 30c a dozen less—90c *extra profit* for you on the order! Sold only through jobbers.

Let TRIPLE SEAL's triple action in preventing leaks build customer good will for you—as it has for thousands of other plumbing contractors. On a basis of performance—guaranteed four years—it's the cheapest ball your customers can buy.

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NEW AND IMPROVED
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The Only Acid-Proof Drain Pipe and Fittings for Good Plumbers to Consider

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**DURIRON**
ACID-PROOF
DRAIN PIPE

# Women's Activities

*"There is not a place in heaven or earth,*
*There is not a life, there's not a birth,*
*That has a feather's weight of worth*
*Without a woman in it."*

By DOROTHY EDWARDS

## President Mrs. Robert Liss Announces Her Cabinet and Committees

From Mrs. Robert Liss of Chicago, president, we have received a complete list of the officers and directors of the Women's Auxiliary of the National Association of Master Plumbers. Those who are aiding Mrs. Liss in guiding the activities of this organization during the present year are: Mrs. O. G. Johnson, Minneapolis, Minn., first vice president; Mrs. R. G. Schwarz, New Orleans, La., second vice president; Mrs. George Doench, Cincinnati, O., third vice president; Miss Esther Schmeisser, Evanston, Ill., corresponding secretary; Mrs. J. Miller Heidweiler, Trenton, N. J., treasurer; Mrs. E. D. Hornbrook, Kansas City, Mo., historian; Mrs. Rose Friend, Milwaukee, Wis., chaplain; Mrs. F. C. Kuetemeyer, Milwaukee, auditor; Mrs. H. H. Diedesch, Chicago, Ill., parliamentarian.

Past National Presidents are: Mrs. John L. Knight, New York City; Mrs. Jacob Brenner, Youngstown, O.; Mrs. E. D. Hornbrook, Kansas City, Mo.; Mrs. W. E. McAndrew, Tampa, Fla., and Mrs. J. Preston Perham, West Roxbury, Mass.

National Directors are: Mesdames W. E. McAndrew, Tampa Fla., chairman; H. O. Green, Tulsa, Okla.; Charles Zimmerman, Union City, N. J.; Christian Madsen, Woodford. Maine; Wm. Metcalf, Rockville Centre, N. Y.; Maney J. Feeney, Philadelphia, Pa.; E. B. Clayton, Denver, Colo.; C. M. Schlenker, Jackson, Mich.; A. R. McGonegal, Clarendon, Va.; L. J. Evans, Memphis, Tenn.; J. Guy Hawkins, Fairmont, W. Va.; George L. Smith, Amarillo, Tex.; I. E. Henderson, Kansas City, Mo.; Albert Hayman, Wilmington, Del., and J. A. Bernardi, Salem, Ore.

State Presidents are: Mrs. H. L. Rose, Jr., Cambridge, Mass.; Mrs. Joseph Berg, East Orange, N. J.; Mrs. Robert Rennie, Portland, Ore.; Mrs. Earl L. Clevenger, Muncie, Ind.; Mrs. C. C. Rosenfield, Rock Island, Ill.; Mrs. Henry Bartosch, St. Louis, Mo.; Mrs. O. A. Waskow, Milwaukee, Wis.; Mrs. A. J. Murphy, Cincinnati, O.; Mrs. Ellis Billings, Arkansas City, Kans.; Mrs. N. M. Knudson, Falmouth Foreside, Maine; Mrs. J. Guy Hawkins, Fairmont, W. Va.; Mrs. Margaret Mesnard, Detroit, Mich.; Mrs. Glen Watt, Tulsa, Okla.; Mrs. Lee Phillips, Lakeland, Fla.; Mrs. J. O. Stapf, Albany, N. Y.; Mrs. J. W. McGelrick, Washington, D. C., and Mrs. C. A. Hjerpe, New Britain, Conn.

The Student Loan Fund for Girls Committee consists of Mrs. Robert Liss, Chicago, chairman; Mrs. George Doench, Cincinnati, O., secretary; Mrs. R. D. Rennie, Portland, Ore., member at large; Mrs. J. Preston Perham, West Roxbury, Mass., vice chairman; Mrs. E. D. Hornbrook, Kansas City, Mo., treasurer, and Mrs. J. P. Brickey, Denver, Colo., member at large.

## Rochester Auxiliary Enjoys Christmas Party

The Rochester, N. Y., Women's Auxiliary held its luncheon and Christmas party on Wednesday, December 13 at the Green Gable Tea Room. Presents were exchanged after a short business meeting, and later cards were played.

## Wisconsin Auxiliary Announces Program for Annual Meeting

On January 23 and 24, 1934, the Wisconsin Auxiliary will hold its fifth annual convention at the Schroeder Hotel, Milwaukee. We have just received the following program for that meeting: On Wednesday, January 23, at 9 a. m. the convention will be called to order. The address of welcome will be given by Mrs. Walter Dusold, president of Milwaukee auxiliary. Mrs. Otto Waskow, president of the state auxiliary, will respond. The regular order of business including election of officers will follow. At one o'clock there will be a luncheon also at the Schroeder Hotel and the installation of officers. Mrs. Louise Liss of Chicago, president of the National auxiliary, will address the group. There will also be a card party that afternoon. On Thursday morning, January 24, the attendants will tour through a local industrial plant, and in the evening there will be a dinner-dance at the Silver Ball Room of the Schroeder Hotel.

## Philadelphia Auxiliary Elects Officers

The Ladies' Auxiliary of the Philadelphia Master Plumbers' Association held its annual dinner and election of officers at the Fuhrman Inn in Philadelphia on December 7. All the officers were re-elected as follows: President, Mrs. George Diggins; vice president, Mrs. M. Stratton; treasurer, Mrs. John F. Siebel, and secretary, Miss Violet Jacoby; board of directors: Mrs. Charles Jann, Mrs. George F. Uber, Mrs. E. Quinlan and Mrs. A. Jacoby.

The auxiliary again this year distributed Christmas baskets to families in the trade in need of assistance. The Philadelphia Master Plumbers Association gave the auxiliary $50 to help this good cause.

## Illinois Women's Auxiliary Honors National Auxiliary President

The Women's Auxiliary to the Illinois State Association of Master Plumbers gave a luncheon and card party in honor of National President Mrs. Robert Liss of Chicago at the Hamilton Club in Chicago on Monday evening, December 11.

Mrs. Liss and State President Mrs. C. C. Rosenfield of Rock Island were presented with beautiful corsages of gardenias, and Mrs. Liss was also the recipient of an exqusite string of crystal beads.

Mrs. Liss gave a short talk in which she expressed her appreciation of the gifts and the great turnout, sixty-nine members being in attendance. She also advocated a membership drive on account of the large increase in the membership of the National Association of Master Plumbers, saying that this increase has qualified a large number of ladies for membership in the auxiliary.

Among the National and State officers present, besides Mrs. Liss and Mrs. Rosenfield, were: Mrs. H. H. Diedesch, national parliamentarian; Miss Esther Schmeisser, Evanston, national corresponding secretary; Mrs. Fred W. Hager

of Chicago, first vice president of the Illinois Auxiliary; Mrs. Henry Swade, Chicago, third vice president of the Illinois Auxiliary; Mrs. Oscar Larson, Chicago, secretary of the Illinois Auxiliary; Mrs. Bertha A. Zajicek, Chicago, treasurer of the Illinois Auxiliary; Mrs. Wm. F. Hildeman, Chicago Heights, past state president, and Mrs. N. J. Mergenthaler, president of the North Shore Auxiliary.

The meeting was also honored by the presence of Mrs. John J. Calnan, wife of the vice president of the National Association of Master Plumbers, and three visitors from Milwaukee Auxiliary, President, Mrs. W. W. Dusold; Secretary, Mrs. Edward Thill, and Mrs. Jacob Schuh.

The arrangements were in charge of Mrs. H. H. Diedesch, assisted by Mrs. O. Larson, Mrs. Henry Swade and Mrs. L. P. Markowski.

## St. Petersburg Auxiliary Entertained Master Plumbers at Code Meeting

Many meetings are being held throughout the country to discuss the codes of fair competition. Just recently the St. Petersburg, Florida, auxiliary added to the enjoyment of such a meeting, held by the master plumbers of that city by serving delicious refreshments of home made cake and ice cream. At this meeting Lee R. Sheffield, local president, and State President David A. Mayfield, who is also state executive on the NRA, explained the code of fair competition and its operation. Foster R. Fanning, state vice president, attended and assisted Mr. Mayfield in his outline of the subject. H. B. Perryn of Tampa also gave a very interesting talk, and from these speakers the members gained a knowledge that will be of great help to them in their efforts to improve conditions in the trade in that part of the country.

## Detroit Auxiliary Is Very Active

The Detroit, Mich., Women's Auxiliary met on December 6 for its regular business meeting and on November 21 for its luncheon and bridge. Plans were made for a Christmas party. In October, the auxiliary held a very enjoyable hard times party. The room was beautifully decorated with autumn leaves. There was plenty of music. Refreshments consisted of cider, doughnuts, coffee and sandwiches. Mr. Chas. Kalin acted splendidly in the capacity of master of ceremonies. Mrs. Lola Brabyn, chairman of the committee, deserves much credit for the efficient manner in which everything was carried out.

## Boston Auxiliary Holds Christmas Party

The monthly meeting of the Women's Auxiliary of the Boston Master Plumbers Association was held at the home of Mrs. Wm. Cleary and Miss May Cleary on November 21. Arrangements were made to hold a whist party during December to help raise some money for the needy at Christmas. Refreshments were served later.

A Christmas party was held at the home of Mrs. James A. Cotter on December 19.

## Ogden Auxiliary Meets in Members' Homes

The Ogden, Utah, Auxiliary held its monthly meeting on December 6 at the home of Mrs. Stanley Rosevear. Following the usual business routine and election of officers, the annual Christmas gift drawing took place. The remainder of the evening was spent playing bunco. Refreshments were served and prizes awarded.

The November meeting was held at the home of Mrs. Harry Eggleston.


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CURTIN VALVE

Closes silently and gives automatic refill to closet.

No Refill tube needed from ball-cock.

Takes all the water out of the tank.

Will flush heaviest closet with small six gallon tank.

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Is really quiet. Try it!

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Gives maximum volume of water in proportion to the pressure.

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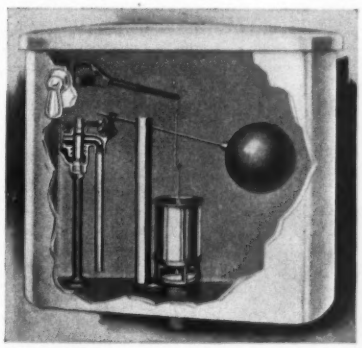

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Returns condensate to heating boilers *promptly, surely, and safely.* Powerful suction lift and air-handling ability prevents steam-binding. A pump that will carry that boiler safely through when *your back is turned!*

A truly *super pump* on hot water service. No pistons to leak and require repacking. One moving part—the impeller—develops delivery pressures up to 100 pounds per square inch.

It's an all-bronze raceway and impeller pump with stainless steel shaft mounted in over-size ball bearings. In short, it's a *genuine Burks Super Turbine!*

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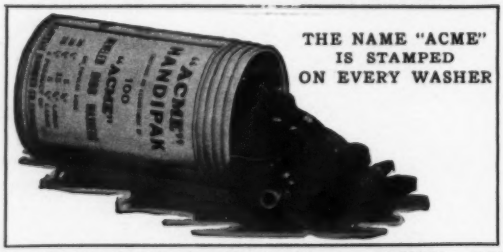
*Write for Bulletin No. 101*

DECATUR PUMP COMPANY DECATUR ILLINOIS

*Resists* **HOT** *or* **COLD WATER**

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The "ACME" Bibb Washers fill the bill perfectly these days when hot and cold water is used at a maximum. Use them and eliminate many of your faucet complaints. "ACME" Bibb Washers come in seven sizes, 100 to the can or in the HANDI-PAK containing 100 washers in seven assorted sizes.

**LAVELLE RUBBER CO. 320 W. Illinois St., Chicago, Ill.**

ACHESON RED BRASS

## Newton Auxiliary Holds Christmas Party

The Newton, Mass., Women's Auxiliary met on December 13th at Bond's Restaurant, Watertown, Mass. The tables looked lovely with Christmas decorations. A steak dinner was served. At the business meeting it was voted to send $10 to the Post Santa Claus and $15 for other charity work. A committee was appointed to take care of this. A surprise whist was held after the meeting and each player received a gift which caused much merriment. Mrs. Fred Perkins was hostess for the dinner and in charge of the whist. Mrs. Davis won the auxiliary prize donated by her.

## Milwaukee Auxiliary Honors National President, Mrs. Robt. Liss

The Milwaukee Auxiliary, headed by its president, Mrs. W. W. Dusold, recently gave a luncheon in honor of Mrs. Robert Liss of Chicago, president of the Women's Auxiliary to the National Association of Master Plumbers. The luncheon was given at the Elks Club in Milwaukee, Wis., and it was followed by a business meeting, at which Mrs. Liss gave a talk on auxiliary affairs and urged a drive for new members and new local auxiliaries. She praised the work of the National Association of Master Plumbers under the leadership of President Robert J. Barrett, and she said that the many new members in the National Association presented that many more possible members for the auxiliary.

Mrs. Liss was accompanied on her trip to Milwaukee by Mrs. H. H. Diedesch of Chicago, parliamentarian of the National Women's Auxiliary.

## Albany Auxiliary Installs New Officers

The Albany, N. Y., Women's Auxiliary installed its officers at its November 23 meeting. The new officers are: Mrs. William Dugan, president; Mrs. Clarence Keeshen, vice president; Mrs. Henry J. Noord, secretary; Mrs. William P. Ryan, treasurer; Mrs. William Cassidy, sick committee; Mrs. Joseph O. Stapf, publicity chairman. Mrs. Andrew J. Ryan and Mrs. William J. Stapf comprise the board of directors. At this installation, Mrs. Andrew J. Ryan, past president, was presented by the auxiliary with a lovely bag.

Following the adjournment of the meeting, cards were played and a buffet supper served, to which the men were invited. Mrs. Henry J. Noord was hostess.

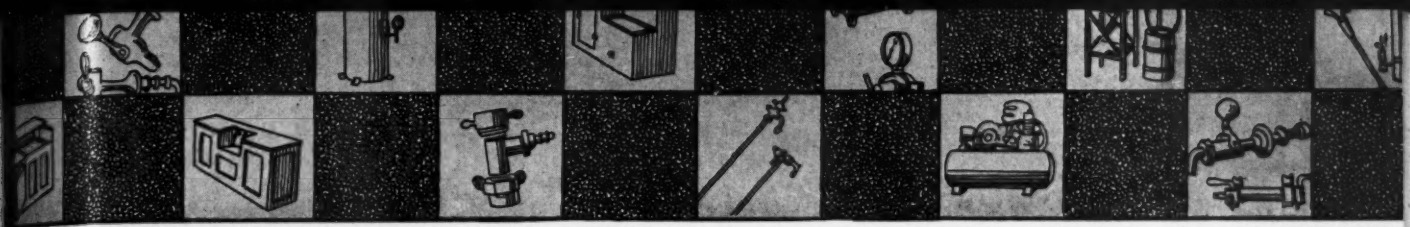
## Cincinnati Auxiliary Holds Christmas Party

The Women's Auxiliary to the Master Plumbers' Association of Cincinnati held its monthly meeting on Tuesday, December 12, instead of December 5, owing to the death of Victor Wegelin, husband of one of the charter members of the auxiliary.

Before the death of Mr. Wegelin, elaborate preparations had been made for a Christmas party on December 12, and these plans were carried out in a most successful manner. The Christmas decorations were beautiful, and the luncheon was good. The absence of Mrs. Wegelin was the only saddening note in the affair, and the auxiliary made her an honorary member at this meeting.

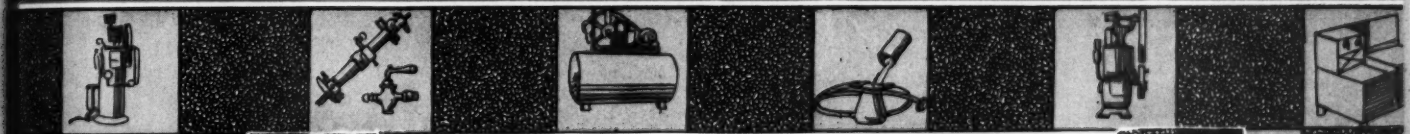
## Oklahoma City Auxiliary Holds Successful Christmas Party

The Women's Auxiliary to the Oklahoma City Association of Master Plumbers held its Christmas party Monday evening, December 4. A large Christmas tree, beautifully decorated, contained gifts to all the master plumbers, their wives and children who were present, a total of seventy-five.



# BEER *and* BAR EQUIPMENT

SECTION OF DOMESTIC ENGINEERING



## Codes Give Sales to Independent Dealers

**New agreements with brewery, distilling and wholesaling industries are signed by President Roosevelt—Stop sales by beverage makers.**

(See Page 106)

**January, 1934**

PROVED ★ 120% SAFER ★

The majority of Brewers and Dispensers can't be wrong. • The great majority of Brewers and Dispensers always preferred the genuine Peerless Tapping System . . . that is why we say it is standard. • Now, a change in design of the Peerless Tap has more than doubled its sealing qualities—so that today it reaches a point of perfection so far in advance of the field that no man interested in the safe delivery of beer can afford to neglect the protection it gives the beverage. • Write for our folder outlining tests.

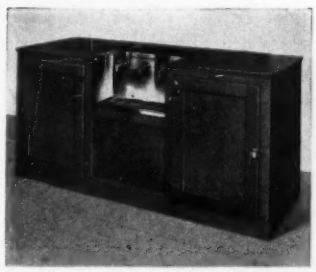
AMERICAN TAP BUSH COMPANY, DETROIT, MICHIGAN • Manufacturers of Beer Handling Equipment for over 38 years and makers of the famous Peerless Portable Beer Cooler retailing for $30.

# BUILD A PERMANENT PROFIT ON BEER!

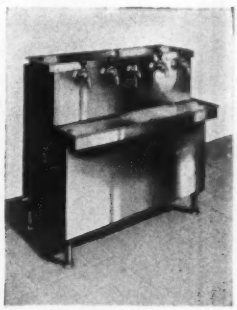
Nine months of successful installations have developed the Liquid-Zahm Beer Drawing System to a spot where you can cash in.

An easily connected unit cools beer and brings it from the dispensing faucet with full quality and no waste. From all over the country we have received reports of better profit from beer service—better flavor attracting new trade—and easy trouble-free operation.

When you sell and install the Liquid-Zahm Controlled-Pressure System you make a friend who is likely to call on you for all his bar requirements. For these the complete "Liquid" line becomes a permanent profit maker. It includes not only all types of beer coolers but all fittings, brass goods and block tin coils for servicing any bar installation.



*Red Diamond Service Bar Styles in Wood (as shown) or Stainless Steel. Coils, Direct Draw, or Liquid-Zahm System.*



*Red Diamond Beer Cooler and Dispenser for Four Coils.*

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*Send the Coupon* FOR THE 96 PAGE CATALOG ON LIQUID BEER DRAWING EQUIPMENT

Liquid

## THE LIQUID CARBONIC CORPORATION

**3100 South Kedzie Avenue, Chicago, Ill.**

NRA WE DO OUR PART

Please send the Complete Liquid Beer Drawing Equipment Catalog.
☐ Also send details on the Liquid-Zahm System.

Name.....

Firm.....

Address.....

City..... State.....

*Clip and Mail to The Liquid Carbonic Corporation, 3100 S. Kedzie Ave., Chicago, Ill.*

BRANCHES IN 37 PRINCIPAL CITIES OF THE UNITED STATES AND CANADA ÷ LONDON, ENGLAND ÷ HAVANA, CUBA

# *. . . . and now the way is cleared for the*

# BEER *and* BAR EQUIPMENT DEALER!

This publication was founded on the belief that the key man in the beer and bar equipment field would be the dealer, because beer and spirituous liquors returned to a world entirely different than when the 18th Amendment was written into the law of the land.

Now there is no doubt as to the key position occupied by the dealer

. . . . . because four codes just approved in Washington (for distillers, rectifiers, brewers and wholesalers) strictly and specifically prohibits these groups from having any interest whatsoever in the tavern or other dispensary.

That's good news for the beer and bar equipment dealer.

It puts his local market where it belongs—in his hands. It makes it possible for him to develop that local market to the best of his ability. It gives him a sound, secure position in a lasting business.

And it's no small market—this one for beer and bar equipment. From June 30 to November 30 over 350,000 Federal licenses, permitting the retailing of beer or of beer and liquor, were paid for. Over 350,000 taverns and other dispensaries where every type of equipment for serving the public is required. The market not only includes the necessary mechanical equipment for the service of beer—it includes all of the equipment needed for food service, for table service. Many cities require stools at the bar. Then there is the immediate call for glassware in which to serve the various types of wine, highballs and cocktails. From coffee urns to cash registers, from tables and chairs to block tin pipe, from furniture to refrigerators—a great new market has been opened.

The dealer in beer and bar equipment is to be congratulated upon the sales opportunities thus assured him.

Competition among these more than 350,000 taverns is going to force the purchase of better equipment—better profits under repeal will make these purchases possible.

. . . . . and BEER *and* BAR EQUIPMENT will continue to serve the dealer with the same foresight that characterized it in the last eight months, convinced that the dealer would be the key man to all of this vast purchasing power.

# 1934 Offers Big Market

Business opportunities for thousands of dealers and for many hundreds of manufacturers in the Beer and Bar Equipment field are being translated into orders and profits as the new year opens. It requires a big, mental effort to go back to the start of 1933 and recall that none of this business was being done at that time. Even the prospect of such business was too doubtful then to justify any ambitious planning.

Today's marketing methods and responsibilities differ from those found most useful a few months ago. The first avalanche of orders which followed the relegalization of beer could give no clue to a sound marketing program over a long term. The dispensers who rushed to get into the beer business, the many dealers who tried to serve them and the many manufacturers who decided to try out the new field, have all undergone the critical test of months. A great many of the hopefuls who began selling beer are not renewing their licenses. Improperly equipped dealers have drifted into other lines where their experience may prove a better guide. Experience and the knowledge of what constitutes quality products is keeping many competent manufacturers in this field while their new competitors of last summer have returned to lines they know how to make.

Now the 21st amendment has introduced a new factor of tremendous importance. The question of what to do with hard liquor since it has regained legal recognition is being worked out in each of the 48 states. Dispensers and dealers are anxious to serve the new market but the form of control which state authorities will exercise is the first decision which must be made before the character and scope of the new market is clearly visible.

However, one trend is clear and is significant. The tendency is to couple the serving of foods with liquors. The hotel and the restaurant are gaining a clearly recognized advantage over the establishment planned solely to sell beverages.

This tendency points the way to dealers and manufacturers in beer and bar equipment. It puts the manufacturers of food handling equipment along side of the beverage dispensing makers in the task of adequately serving this big, new market. The dealer will find himself meeting calls for both classes of equipment. The restaurants and hotels become a larger market for the dealer. New standards of service, appointments and sanitation will hasten remodeling and re-equipping. Beer and liquor will be the compelling motive in a customer's mind. The food becomes incidental. The opportunity for both manufacturer and dealer is clear.

EDITORIAL

# THE BEER AND BAR

VOLUME 1 CHICAGO, ILLINOIS

# CODES PUT EQUIPMENT SALES

## *Five Codes Stop Equipment Sales by Beverage Makers*

Codes of fair competition covering five industries, approved in the past few weeks by President Roosevelt, write a charter of freedom for the independent dealer in beer and bar equipment. These are Codes Nos. 3, 4, 5, 6 and 7 in the fair competition code series of the Agricultural Adjustment Administration. They cover the distilled spirits industry, the alcoholic beverages importing industry, the brewing industry, the alcoholic beverage wholesale industry and the distilled spirits rectifying industry.

The intent of these codes, garbed in legal terms but clear to any one, is to prevent those manufacturers and wholesalers concerned with the production and distribution of liquor and beer from controlling the retail outlets for their products. Such control, as in the old days, might easily be built up around a system of furnishing equipment under a financing arrangement which tied the retailer to the beverage manufacturer or wholesaler. So the codes call clearly for equipment sales to be handled through dealers who have no interest of any kind in the beverage dispensed through that equipment.

In the code of the alcoholic beverage wholesale industry, one section covers unfair methods of competition, excluding the products of the brewing industry. Following a number of fair trade practice rules, this article (No. V) in Section 8 prohibits as unfair for any member of the industry "to hold any interest in any license for the sale of alcoholic beverages at retail for consumption on the premises; or, directly or indirectly, to participate or engage in the sale of alcoholic beverages at retail for consumption on the premises; or to control, employ, manage, or financially assist in any manner, any person engaging in the retail sale of alcoholic beverages for consumption on the premises; or to hold any interest in any premises on which alcoholic beverages are sold at retail for consumption on the premises, unless the holding of such interests is permitted under regulations of the Administration or a statement thereof has been filed with the Administration and has not been disapproved by it; provided that this section shall not be held to prohibit the granting of the credits ordinarily extended by the industry with respect to the sale of alcoholic beverages."

Under Article VI of the same code, unfair methods of competition are defined as applicable to products of the brewing industry. Under Section 6, ownership of retail licenses and loans and guarantees to retailers are both prohibited. Paragraph (c) of this section treats of equipment and fixtures and its provisions are clear cut. They do not allow any distributor of products of the brewing industry "to furnish, give, rent, or sell any equipment, fixtures, or supplies, directly or indirectly, or through a subsidiary or affiliate, or by any officer, director, or firm member of the industry, to any person engaged in selling products of the brewing industry for consumption on the premises where sold. Nothing herein shall be construed as applying to such equipment, fixtures, or supplies furnished, loaned, or rented prior to the effective date of this Code or prohibit the sale by any member of the industry or any subsidiary or affiliate thereof, of such equipment, fixtures, or supplies now opened by them and now installed in retail premises. No loan, rental, or sale of any equipment, fixtures, or supplies made before the effective date of this Code shall be used as a consideration for an agreement thereafter made respecting the purchase of products of the industry."

Ownership of premises in which products of the brewing industry are sold at retail is also prohibited.

A similar clause is a part of the code of the brewing industry, of the distilled spirits industry code and the

## *OPEN FOR BUSINESS*

**A tyical rush of customers on the first day of repeal**

# EQUIPMENT NEWS SECTION

JANUARY, 1934 No. 7


# UP TO INDEPENDENT DEALERS

distilled spirits rectifying industry code.

These codes, having been signed by the President, are now in effect with the force of law. They control the business practices of the industries named. By freeing members of the brewing industry from the competitive pressure of those who purchased beer sales by securing control of retail outlets, they accomplish the very reform for which most farsighted brewers have asked.

The complete separation of the business of selling beer and liquor and the business of selling equipment promises for the first time to give independent dealers an opportunity to compete against each other on a basis of ability and salesmanship. Outside competition is outlawed.

## MINNESOTA PASSES LIQUOR CONTROL BILL

In Minnesota, on Dec. 29, the house passed a liquor control bill providing for a system of sales controlled by local option. The legislators reversed themselves to make provision for restaurants in first, second and third class cities to sell liquor by the drink. Package sales in general food stores also were allowed in first class cities.

In villages, boroughs, or fourth class cities, liquor by the drink could be sold only in municipal saloons or hotels and clubs. Hotels and clubs also may sell liquor by the drink in all cities of other classifications.

## BREWER SAYS CODE WILL BE HELP TO INDUSTRY

The vice-president of one of the leading breweries, who also is a member of the National Code Authority Board has made the following statement: "I feel that the industry has appointed to the National Code Authority Board a group of men who will give their time and who will work in the interest of the industry, endeavoring to adminster this Code to the best of their ability.

"I personally feel that the Code will be of great help to the brewing industry."

## *States Battle with Job of Controlling Liquor Sales*

***REPEAL DAY SCENE AT A CHICAGO BAR***

## CHAIRS IN DEMAND AS LIQUOR RETURNS

In some cities, liquor's return was met by city ordinances requiring the drinker to be seated while imbibing. Chicago was one of the cities and this shows why a big demand was created overnight for suitable chairs.

The coupling of drinking with food sales is another reason for the upturn in the market for chairs and seating accommodations. That tendency promises to continue as more states require restaurant service along with liquor dispensing.

Quick changes are taking place in laws and regulations to govern the sale of liquor in the various states. In many cases, legislatures are in regular or special session debating those laws.

With the question returned to the hands of the 48 states for individual settlement, little chance exists for uniformity in such laws. Makers of bars have met in some states, a tendency to prohibit liquor selling for consumption on the premises. But such sales are permitted by other states when served with food. The state store is to be tried out in other states.

Some clearing up of this situation is inevitable as states pass their first laws or amend those which tests have proved to be unsatisfactory.

When repeal became effective, legalized liquor was available in only 18 states. These states were Massachusetts, Connecticut, Pennsylvania, Wisconsin, Colorado, Arizona, California, Washington, Louisiana, New York, Delaware, Illinois, Indiana, New Mexico, Nevada, Oregon, Maryland and Rhode Island. Since then other state legislatures have been called together to provide the legal machinery by which liquor selling could be resumed.

## FOREIGN NATIONS WILL HAVE WINES ON DISPLAY

The definite commitments that have been made for displaying the wines and liquors of Australia, Union of South Africa, Italy, France, Germany, Spain, Portugal, Hungary and Czecho-Slovakia—have assured a real international aspect to the coming First International Beer and Wine Show. In addition special exhibits of drinking vessels will be in the show.

# 10,000 ATTEND MEETINGS ON COOLING OF BEER

Closer understanding of the problems affecting those interested in the brewing and selling of beer has been reached as a result of a series of 45 meetings in the principal cities of the United States arranged under the sponsorship of Frigidaire Corporation.

At these meetings, methods of handling beer were discussed by prominent brewers, health authorities and refrigeration experts and approved equipment for the proper cooling of beer was exhibited. These meetings were attended by more than 10,000 representative members of the brewing and dispensing trades, brew masters, prominent dispensers, and leading refrigeration experts.

Experts from Frigidaire who toured the country and explained the principles of mechanical refrigeration included W. D. McElhinny, commercial division, manager; C. E. Quigley, manager beer cooling division; John Breen, commercial sales promotion manager; R. B. Ambrose, retail commercial sales department manager; and V. A. Hetzel, A. C. Freiman, E. M. Powell, C. B. Gamble, W. C. Yates and D. C. McCoy, commercial engineers.

Throughout the entire series of meetings, it was stressed by speakers that in order to serve beer properly, to pass it on to the customer with the proper zest, it must be properly refrigerated. Stress also was placed on the necessity for precooling of kegs and guarding against permitting the brew to rise above a predetermined temperature.

"We brew our product as close to perfection as possible," was the consensus of the brew masters. "We put it into half barrels and then transport it to the dispenser. When it gets to the retailer it will still be cool, but if it is not placed in a precooler it will begin to get warm and will lose its carbonization and will get that flat taste that brings protests. Also, the micro-organisms that are found in beer begin to increase and if the beer gets too warm they increase too rapidly. Proper cooling preserves the beer at just the right degree."

It was generally agreed at the meetings that the accurate control of serving temperature is vital. For example, when beer is to be served in glasses at room temperature, it should be drawn from the draught arm at a constant temperature of 40 degrees. This makes possible a consuming temperature of 45 degrees, which is the figure unanimously agreed upon by the brew-masters of America at a recent meeting in Chicago. According to these experts a temperature of 45 degrees assures that the customer will have a drink possessing maximum flavor and bouquet—just right for greatest enjoyment.

Under other conditions, of course, where beer is served over the bar or where it is served in pre-cooled glasses, it may be desirable to have a draught arm temperature slightly higher than 40 degrees. But regardless of conditions to be met or temperature desired, the big fact remains that an accurate control is absolutely required.

How such control is obtained with Frigidaire equipment was explained in detail and actual demonstrations with the equipment on display at the meeting showed that regardless of the rate of draught, each glass could be depended upon to have the correct temperature.

A striking demonstration was the serving of the beer after the meetings. As the crowds lined up for a drink, thermometers were drawn invariably. The temperature of the beer was tested. After several hundred glasses of beer were called for, again thermometers were drawn. Expressions of surprise were registered. Another round of beers—more thermometers—more surprise. Regardless of how fast the draw, regardless of whether it was the first glass or last—the result was the same —40 degrees.

Health commissioners in practically every city where the meetings were conducted joined in the program and explained the necessity for care in the handling of beer. At Minneapolis, Dr. F. E. Harrington, commissioner of health, declared that the temperature of beer always must be around 40 degrees above zero or below this mark if it is to be protected from bacterial and chemical changes. When beer is kept properly under safe refrigeration and in clean equipment that is easily kept clean, it has the healthful and nourishing qualities for which it exists, he said.

**This specially built Frigidaire equipped bar has toured the country for exhibition before groups of beer retailers. Frank R. Pierce, left, sales manager, and W. D. McElhinny, commercial division manager of Frigidaire Corporation, are shown. The various compartments are, left to right, bottle storage, ice cube maker, beer storage, Frigidaire twin draft arm fifty gallons per hour dispenser, beer storage and compressor compartment**

# U. S. DEFINES MANY KINDS OF WINES

Definitions and standards for food products promulgated by the U. S. Department of Agriculture recently, describe the definitions and standards of wines. The list includes wine, dry wine, fortified dry wine, sweet wine, fortified sweet wine, sparkling wine and modified, or corrected wine.

## INVITE 50,000 DEALERS TO BEER & WINE SHOW

More than 50,000 holders of retail licenses to dispense alcoholic beverages in eight or more Eastern states will be the guests of the directors during the week of Feb. 19, in New York City when the First International Beer & Wine Show opens at the Grand Central Palace, it is announced by Conrad J. Eschenberg, associate director of the show.

"We are arranging with state secretaries of retail beverage dealers' associations," said Mr. Eschenberg, "to distribute season passes to all their members so that they may attend the International Beer and Wine Show during the week without paying the general admission fee of fifty cents which will be the charge to the general public.

"Already we have received communications from many of the secretaries in the New York City area and are arranging to have the secretaries of the associations in Massachusetts, Rhode Island, Connecticut, New York state, New Jersey, Pennsylvania, Maryland and Delaware and other states distribute the passes to all their members. Officers of the National Association of Beverage Dealers have pledged their support in getting a record breaking attendance of their members to the show."

Complete retail dispensing units used by retailers of beers and wines will be on exhibit, added Mr. Eschenberg, and the latest methods of retailing beverages, with the most modern utensils will be available for demonstration purposes.

## BREWERS ASK FOR TAX OF $2 PER BARREL

C. D. Williams, secretary of the United States Brewers' Association, has just released a memorandum submitted to the ways and means committee and the finance committee on the tax measure pending in Congress. It points out that 3.2 per cent beer is now taxed by the Federal government at the rate of $5 per barrel of 31 gallons, or $6 for beer of higher content. With state taxes averaging about $1 per barrel, it points out that the large majority of retailers can not sell beer at five cents a glass. Before prohibition, the federal tax was $1 per barrel with no state taxes.

With labor costs up and in order to make the 5-cent glass possible, the memorandum suggests a federal tax of $2 a barrel, double the pre-prohibition rate. For beer of more than 3.2 of alcohol by weight, a tax of $5 per barrel is recommended by the brewers' association.

## OPEN STATE STORES IN MICHIGAN

State stores were opened in Michigan in time to permit liquor sales for the New Year's Eve trade. But Frank A. Picard, chairman of the Michigan liquor control commission, announced in advance that only eight stores could be opened at first, four in Detroit, and one each in Grand Rapids, Saginaw, Kalamazoo and Jackson. A "model" store also had been leased and is being set up.

## BREWERS WILL MEET IN ATLANTIC CITY

The United States Brewers' Association will hold a convention of its members at the Ambassador Hotel, Atlantic City, N. J., on Feb. 6 and 7, to which all brewers and members of the allied trades are invited.

A business meeting followed by several important and constructive addresses, and a banquet is being arranged. Program details will be announced in the near future.

## ARCHITECTURAL SERVICE HELPS SELL BAR EQUIPMENT

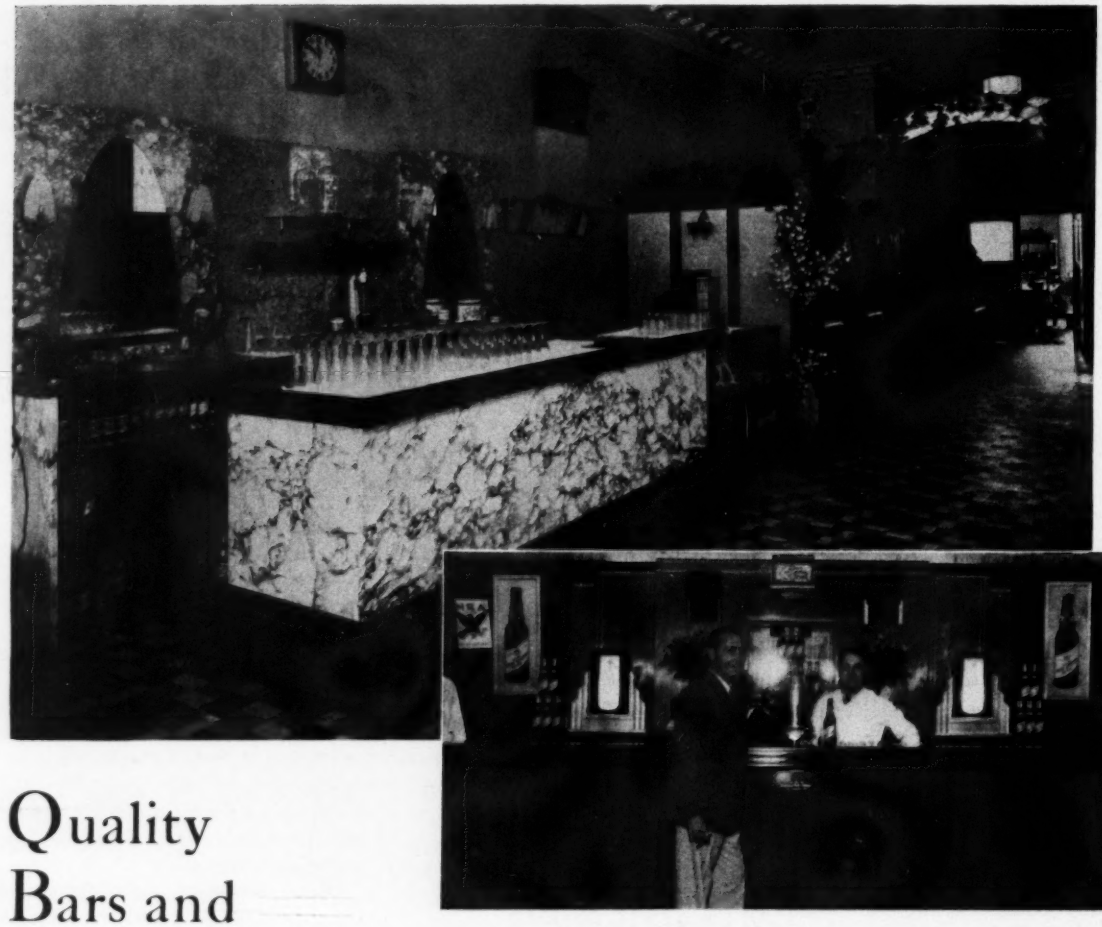
There are fifteen architectural planning service divisions in the nation-wide organization of the Brunswick-Balke-Collender Co., according to statements recently made by the officials of this bar equipment manufacturing company.

**Architectural and Drafting Department of Brunswick-Blake-Collender Co.**

These offices are staffed by graduate architects and experienced designers who render wash drawings of specially designed bars for prospective customers and co-operate in every way with the dealer and the plumber. In many instances, the Brunswick architectural planning service takes charge of the design and installation of a complete installation, equipping it from bare walls to richly paneled interior.

It is understood that the architectural service offered the prospective purchaser of a bar is unique in the bar equipment field. At any rate, it indicates a trend to think in terms of customer satisfaction after the actual bar installation is made, and to co-operate in a manner that will aid sales.

By offering the buyer experienced, competent advice on his service of beer or other beverages, the Brunswick - Balke - Collender Company extends its bar planning service into the wider field of decoration and woodworking. This architectural service has been received by scores of new buyers with enthusiasm for it relieves them of the difficult task of planning.



# Quality Bars and Accessories

*These several photographs point out effectively how tavern, restaurant and hotel owners have been responsive to the*

**The illustration immediately above shows a bar in the Merchandise Mart in Chicago. Ben Bernie is the one who is ordering the glass of beer**

**At the left is a view of the Palmer House bar in Chicago, which just recently opened. Note the stools lined up two deep**

The circular bar illustrated above is typical of many of the modern bar tendencies. This particular unit was designed by Joseph Urban

*demand for good installations and attractive places of business. The obvious result is good beer and satisfied patrons.*

Below is a picture of the bar section of this combination food and drink establishment. The close tie-up between these two services is well illlustrated.

These two views show a cafe in Indiana where the serving of food is combined with facilities for the dispensing of beer. The illustration above shows mainly the food section

**Fig. 1—Here is an installation of beer dispensing equipment in connection with facilities for serving food. Note the steam table, the coffee urn, the griddle and the drink mixer on the back bar**

# Food Serving Tied in With Beer and Bar Equipment

By Andrew A. Parkinson

THERE appears to be a definite tendency toward the tying in of beer and liquor sales with food sales. In some sections it has been advocated that these beverages be sold only where food is sold or served. Although several reasons could be advanced for this, probably one of the most forceful is that so many restaurant owners and food stores have been alert in taking on the handling of beer and liquor as a supplement to their regular line of food products. Many restaurants and other food serving establishments have equipped themselves for this business. They have installed facilities for storing, handling and serving properly the beverages relegalized through the repeal of the eighteenth amendment.

On the other hand, not only have restaurants taken on the handling of beer and liquors but stores which originally were set up to sell these beverages only have taken on the sale of food in recognition of the trend toward the combination of these two services. This, in turn, has required the installation of cooking and food serving facilities. Thus, the two have come together and the problems of the restaurant owner have become those of serving properly beer and liquor and the problems of the beer store owner have become those of winning customers with food.

With these new conditions facing all manufacturers and dealers of beer and bar equipment and supplies and restaurant equipment and supplies, it is important to have a clear understanding as to what the demands include. This is especially so in the case of those who furnish beer and bar equipment.

Owners of beverage dispensing establishments who want to equip themselves for the serving of food, in many cases are at a loss to know where to begin in selecting the necessary and most advantageous facilities.

### STORE OWNERS LOOK TO DEALERS

Many of them are just becoming acquainted with the beer and liquor dispensing field. All of their contacts so far have been with those interested in the installation of this type of equipment. Naturally their inclination is to go to the ones who have advised them adequately and correctly in regard to the selection of beer and bar equipment and request the same service where food equipment is concerned. Accordingly, the problem of the manufacturer and dealer of beer and bar equipment, at this time is one of understanding fully the food field, as well as his own, and where it overlaps the beer and bar equipment field.

For instance, refer to Fig. 1, the illustration at the

head of this article, here is a combination set up. The bar is installed in conjunction with equipment for the serving and sale of sandwiches, coffee, cigars, tobacco, ice cream, candy and similar items. Just as in the case of cooling coils, novelty boxes, beer lines and taps, care and good judgment must be exercised in the selection and installation of steam tables, coffee urns, broilers, dish washers, bake ovens, stoves and related items.

### BEER, BAR AND FOOD EQUIPMENT

Under this set of conditions, the logical development of the beer and bar equipment dealer is toward the food field just as the natural expansion of the specialist in supplying restaurant equipment is in the direction of the beer and bar equipment field.

To turn our attention back to the restaurant equipment dealer, and what he should know about beer and bar equipment, much information has been given out in the last few months as a result of developing this new industry. However, since the early part of last month when alcoholic liquors and wines became legalized, there has been a great demand for information on bar supplies. In the glassware field alone, there are such items as the small wine glass, 1¾ to 2½ oz., used for various kinds of heavy, sweet wines; the port wine glass, 2½ to 3 oz.; the sherry wine glass, 1¾ to 2 oz. which sometimes is made in a 2½ oz. capacity; the claret wine glass of 4 or 5 oz. capacity, also used for Sautern and still Burgundy; the Rhine wine glass, 3½ to 4½ oz., also used for serving Muscatel wine; the wine schoppen for May wines and other light wines; the roemer; the round bowl, the saucer champagne; the tall champagne or ale; the saucer bowl hollow stem champagne; the seltzer glass; the gin fizz glass; the strained lemonade glass; the fancy fizz; the milk punch; the Tom Collins; the cordial, creme de menthe; pousse cafe; old fashioned cocktail; the cocktail; the brandy inhaler; the whisky glass; the side water; straight hi-ball; footed hi-ball; hot whisky and the whisky sour glass. This does not mention such items as cork pullers, ice buckets and tubs, bar bottles, ice shavers and many other items which fit into the completely equipped bar.

Over and above these problems of adequate service in the separate fields, there is still another condition which must be faced and disposed of satisfactorily. This has to do with complete and proper sanitary facilities both from the standpoint of taking care of the needs of patrons through toilet arrangements and from the angle of maintaining cooking and serving utensils in a sanitary condition.

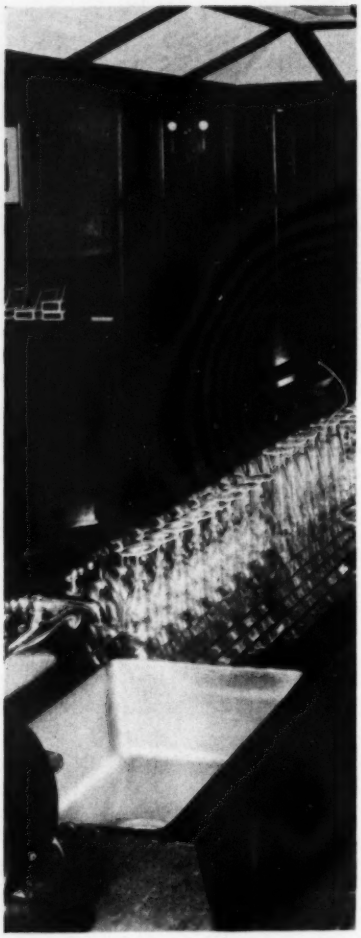
### SANITARY FACILITIES REQUIRED

Adequate and proper sanitary facilities in connection with taverns, restaurants and dining rooms where stimulating drinks such as beer, wines and other alcoholic beverages are served for consumption on the premises, should not be overlooked. A great amount of work has been done along this line by the State of Wisconsin. In preparing these requirements, they have been presented so that they can be country wide in application as far as essential conditions are concerned.

As an indication of what many State and local boards of health are requiring, the following may be mentioned:

All serving counters and fountain rinsing sinks, drains and appliances should be of such design, size, materials and construction as to adequately serve the purpose for which they are intended and so as to meet proper service and sanitation requirements.

**Fig. 2—The sign in the window says that this place is a restaurant. The Liquid Carbonic Corporation bar and beer dispensing equipment stands out as a recent expansion of the service of this establishment**



Back bar at Hotel Pfister, Milwaukee

# *Milwaukee Finds Business In Remodeling Taverns*

RESTAURANTS, hotels, in fact any place where food and drinks are served, have found it necessary in Wisconsin to observe the requirements of the health authorities regarding mechanical services.

Although Milwaukee and other cities and communities in Wisconsin welcomed the return of 3.2 per cent beer in April, that being generally recognized as a "wet" state and one that has benefited from a financial standpoint because of its large beer production facilities, the people through their public officials have at the same time insisted on suitable and adequate sanitary facilities and sanitary equipment for dispensing malt beverages. Now that the Eighteenth Amendment has been repealed, a special session of the state legislature has been called by Governor A. G. Schmedeman to formulate laws and regulations for the taxation, sale and other requirements governing alcoholic beverages generally. This session was opened late in December and at this writing no law has as yet been passed, and when it is passed it will probably contain no provisions affecting the requirements for sanitary facilities. The present requirements have been promulgated by the Wisconsin Industrial Commission with the cooperation of the state plumbing inspection department, with enforcement left, first, to the local city officials and, secondly, to state officials where required.

As soon as better beer was legalized last spring, the common council of the city of Milwaukee adopted an ordinance to license taverns, beer gardens and other like places of public assemblage for the serving of malt beverages. This ordinance, according to the city clerk, in-

cluded the state regulations in toto, stating that city rules and regulations be the same as those already promulgated by the state.

### REQUIREMENTS FOR TAVERN LICENSE

In compliance with the request of the Common Council committee on permits, rules and engrossed ordinances, inspections and approvals of buildings wherein there will be maintained and operated a tavern, must be made by the bureau of building inspection before the committee issues a tavern license to an applicant. Inspection of these places shall be made immediately from lists of applicants furnished by the city clerk.

"Sanitary regulations, as required in Order 6113 of the Industrial Commission of Wisconsin, shall apply to all existing altered and new buildings wherein taverns are to be operated and maintained," said Leon M. Gurda, inspector of buildings. "Taverns, restaurants and dining rooms where stimulating drinks are served for consumption on the premises, are classified, for the purpose of enforcing city and state building and sanitary regulations, in three classes. The provisions for sanitary facilities in classes one and two include separate toilet rooms for both sexes, one water closet for every 40 females, or fraction, with a minimum of one closet; one water closet for every 75 males; one urinal for every 50 males where more than 25 are accommodated, and one wash basin for every two fixtures installed.

"Class three includes restaurants and dining rooms where serving of beverages is only incidental to the regular food service. Under this heading accommodations also are required for both male and female employes and there are other adjustments on minimum requirements.

"Each district inspector of the building department," Mr. Gurda said, "determines upon the number of toilet rooms required, the number of fixtures required in each toilet room, the condition of existing fixtures, the sanitary condition of existing toilet rooms, and the structural and sanitary condition of the building in general. Where violations exist, proper notices are sent to owners of buildings and applicants for tavern licenses, requesting the necessary changes be made.

"All buildings wherein taverns are located and for which an application for license has been made to the Common Council, which comply with all the requirements of the State and City laws, are certified to the Common Council and delivered to the City Clerk," according to Mr. Gurda. "No approval of any building is forwarded where violations exist until such violations have been corrected."

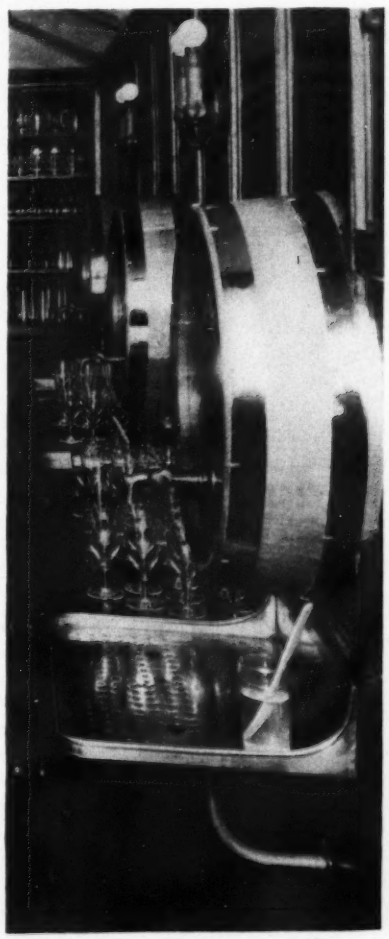
Regulations are also imposed by the Health Department regarding rinsing facilities. All glasses should be cleaned and sterilized by rinsing in cold water and then immersing for at least one minute either in hot water maintained at a temperature of 170 degrees F. or in chlorine solution of certain content, after which the glasses or containers are to be placed top down on a drain board for draining and drying.

### RULE ON WASHING OF GLASSWARE

Certain provisions have also been made by the city water department of requirements for connections for bars with water system.

When the city ordinance was passed in June, it was decided to permit an extension of 90 days for compliance of sanitary regulations, and this was later extended to Dec. 1. This was partly due to the fact that the city inspection departments were unable to make immediate inspections of nearly 3,000 buildings for which applications were made, and also because many tavern operators were financially unable to have all installation and remodeling work done. They pleaded that the installation of necessary equipment to operate made it impossible to expend additional money to meet sanitary requirements of the ordinance.

However, the common council has not granted licenses to those operators of taverns who have not met the code requirements. Due to pressure, it was decided to accept the $100 license fee and issue a receipt which the applicant could post on promise to comply with



**Monel metal is used in Hotel Pfister tap room**

**Attractive surroundings are provided in the taproom of the Eagle auditorium at Sheboygan, Wis., as indicated by this illustration**

sanitary regulations within a reasonable time. Those not complying within the time set will lose their deposit and have their taverns closed.

Since December 1, revocation of temporary permits held by tavern keepers who refused to comply with the sanitary regulations has started. The licensing committee of the common council on December 20 ordered four permits revoked and three others will be compelled to stop selling beer and liquors until they have complied fully with the requirements. Others are being summoned daily for failure to comply with the sanitary code up to December 1. In most instances, the tavern keepers claimed the work of installing additional sanitary facilities is under way, and the committee decided not to order revocation pending further reports from the inspectors. Some have filed affidavits that they will not permit women in their taverns, which will eliminate the necessity of toilet facilities for women. Many others who were on the original list have completed the work and have been approved for licenses.

### NOW ORDER REMODELLING

Widespread protest from the public and a veto by Mayor Daniel Hoan were responsible for further delay in complying with sanitary regulations. It was pointed out that tavern keepers were shown a great deal of consideration since legal beer sales were again permitted, and that they have had time since last spring to put their places in shape.

Public opinion in Milwaukee is for high class taverns, which will eliminate many places that would bring back conditions existing in the days of the old saloon. Sanitation has become a habit with citizens in their homes, in business places and other places where people assemble. Naturally they insist that reasonable sanitary facilities are provided in places where they eat and drink. In the main, the regular class of tavern keepers offered no objections to complying with the law and, in fact, felt it was an advantage to stimulate business and patronage. The percentage of those whose license was held up and who have not complied to date is comparatively small, and officials are now beginning to eliminate them.

### HAS BROUGHT MANY ORDERS

"The return of beer and now of alcoholic beverages with permission to dispense them in taverns and other public places," said Peter J. King, executive secretary of the Master Plumbers Associations of Milwaukee and Wisconsin, "has resulted in many sanitary installation jobs for master plumbers. Of course, these jobs do not run into large figures as a rule, but the aggregate is appreciable particularly in these times where business generally has been rather quiet. While our records do not show totals of the number and kinds of installations and the amounts involved, permits for such jobs have been numerous ever since beer was legalized. Aside from any economic questions involved with repeal, enforcement of sanitary requirements in taverns here and throughout Wisconsin has certainly helped the master plumbers to get an additional volume of business that otherwise would not have been forthcoming. Thousands of dollars have been expended to remodel equipment or install entirely new equipment in thousands of taverns, so that the plumbing industry got its share of the business increase that was predicted would follow repeal."

No plumbing fixture, device or appliance should be installed which provides a cross connection between a drinking water supply, a polluted supply or a drainage system or a soil or waste pipe so as to permit or make possible the back flow of sewage, polluted water or waste into the water supply system. This precaution should be applied to all plumbing fixtures and appliances used in connection with taverns, including closet bowls, wash basins, urinals, drinking fountains, and the like.

***More and more it is being recognized that beer must be served properly to retain its original qualities. The Bishop & Babcock Sales Co. outlines its suggestions in the following***

# Recommendations for Quality Bar Installations

## *This Article Continues a Series*

WHEN beer is trucked out in cooperage from the brewery it carries a temperature of around 36 deg. Fahr. to 38 deg. Fahr., and with modern modes of conveyance is received at the dispenser's establishment before it has had time to increase materially in temperature. The temperatures, as well as all other conditions to which the beer is subjected prior to the time it reaches the retailers, are scientifically correct.

The brewer of today has little relation to the brewer of old in his methods of operation. Science prevails in all his departments. Thermostatically controlled temperatures, accuracy and efficiency in handling of brew, and the ultimation in sanitation, which in many instances involves an elaborate refrigeration system and air conditioning; are capitalized in the breweries of today. In substance, no detail has been overlooked by the modern brewer in his endeavor to produce a beverage that is healthful, palatable and pure. The new brewer has been brought to realize, by virtue of necessity, the importance as well as the responsibility of guarding against every flaw in the manufacture of his produce.

The retailer is another individual. He has been restricted only by the limitations of his purse in setting up his establishment. In many instances he has been dispensing beer with very little regard as to its proper handling. Indeed few persons realize that beer is really a perishable, cereal beverage and that it should not be subjected to any conditions that cannot be recommended for the most delicate foods.

### DEFINITE PRACTICES GOVERN

There are in fact, certain very definite practices which govern the handling and dispensing of beer in order that the quality and characteristics that are most desirable be preserved for the consumer. The brewers have developed a highly specialized industry, spurred by an understanding of what is required for the proper production of a palatable beverage; they have fitted their establishments with complete equipment and full facilities relevant to the brewing of quality beer. It remains for the retailer to parallel that degree of proficiency which the brewers are maintaining in order to give the consuming public the full benefit of the high grade beers that are now being produced.

An important thing for the retailer to realize is that at every step in the production of beer it is under complete control in regard to conditions of temperature, etc., and that the retailer's aim should be to keep intact this

correct handling that is all important to the industry. The real danger of beer not reaching the consumer in perfect condition lies with the retailer; but if he exercises a keen observance of the right practices that govern the proper handling of beer he will be the one who will benefit in retaining his trade.

As previously stated, beer leaves the brewery at about 36 to 38 deg. Fahr. in the cooperage and reaches the retailer without more than two or three degrees variation. When received it should be placed immediately in storage that has a regulated temperature, not exceeding 40 to 45 deg. Fahr. The beverage should not be dispensed immediately upon unloading from the truck but should stand for about twelve hours to settle. On the other hand, it is not good practice to keep beer in storage for more than 48 hours.

### LIMIT SUPPLY OF BEER STORED

The smaller retailer who does not dispense a large quantity of beer should not try to carry a big supply on hand, but should order only enough beer for his immediate use.

Bottle beer should be stored right side up in a cool dark place. Bottle beer should not remain on ice or in extremely low temperatures over night. Beer, either in bottles or in cooperage, should never be allowed to freeze; 36 deg. Fahr. should be the minimum temperature to which beer is subjected, and as even a storage temperature as possible should be maintained. Cooperage should never be allowed to dry out either when full or empty.

Beer, as few people realize, has a high degree of protein content, varying between 18 per cent and 30 per cent. Because of these protein properties it is very sensitive to the actinic action of the sun's rays, and a very little exposure to strong sunlight will definitely cause a chemical reaction that will break down the natural qualities of the beverage. By actual test, long exposure to strong sunlight will in time render the beverage unpalatable.

Beer has a two to one gas volume content, i. e., one volume of beer (quart) contains two volumes (quarts) of carbonic acid gas and the moment this proportion changes by reducing the gas volume the refreshing qualities of the beverage suffer and it becomes flat. The correct gas content in the beverage is retained by temperature and pressure and as soon as these are changed the gas content also changes. The ordinarily recommended temperature is 40 deg. Fahr. and the recommended pressure is about 15 lb. The gas is released from the beer when it is subjected to warm temperatures (average room temperature) without pressure, and it is this escaping gas which foams the beer and develops the cap.

Those who are connoisseurs of the beverage judge the beer by the cap that it takes in serving. Beer that is served too cold (below 38 deg. Fahr.) will not cap properly, and beer that is served too warm (above 45 deg. Fahr.) will not have the proper amount of clear liquid in proportion to the cap and will be unpleasant to the taste.

Scientists have discovered that the phenomena of taste responds directly to the temperature of the substance tasted. Maximum taste sense efficiency occurs at normal body temperature (98 deg. Fahr.) and changes in direct proportion to the increase or decrease of that temperature; so when beer is served at too low a temperature it is practically tasteless and beer that is frozen is ruined.

Beer is very quickly affected by any fatty substances, such as butter, milk, cream, cheese, and a number of beverages such as coffee, soft drinks, etc. The effect is a cloudy appearance and in most instances the beer will not take foam or cap. Soapy deposits left from washing glasses also have this effect.

Excessive heat will not only spoil beer for drinking but in time will completely liberate the gas content and might even cause bursting of the barrel.

Unfortunately the market has been satiated with all manner of dispensing apparatus that to the outward appearance, under the eye of the inexperienced layman, appears fitting for the dispensing of beer; but which has little else than outward appearance. Some dispensers, it is true, are using equipment that is actually unsightly, yet is properly built for the correct serving of beer. Neither condition is advisable or necessary although the latter is preferable; for good equipment, embracing every detail of construction that is necessary for serving is now readily obtainable; and indeed has been since the return of the lawful privilege of drinking beer. It will be observed that the same understanding is requisite to the building of the right kind of dispensing equipment as to the manufacture of brewery machinery and that the peculiarities and characteristics of the beverage must be reckoned with to obtain any approximation of perfect service.

### MANY DETAILS INFLUENCE QUALITY

It is now apparent that every detail in dispensing equipment construction, such as insulation, refrigeration, beverage coils, capacity of cooling compartment, etc., has a direct bearing and influence on the quality of the beverage as it is dispensed. Correct conditions *must* prevail or the natural quality of beer, no matter how good, cannot be retained.

Novelty boxes and coil boxes should be insulated for heavy duty. There is a large amount of various grades of materials being used in the construction of dispensing equipment. Therefore, all materials, as well as points of construction, should be checked up in making purchases. All wood in frames and walls should be of a high grade lumber which is seasoned and treated to withstand moisture and cracking from changing temperatures, etc. The lining in the coil bath compartment should be heavy and should be overlapped and soldered at all joints to avoid leakage. Wet cork will not insulate, nor will any other type of insulation material. Coil boxes, whether portable or stationary, are designed to serve cooled beer from the barrel which is kept in some other portion of the room, but novelty boxes are so constructed as to accommodate storage in the unit itself of the barrel in a cooler compartment. In the novelty box the barrel compartment should be heavily lined throughout with copper bearing galvanized iron and have a rack to prevent scuffing out of the unit floor. Doors and walls should be insulated. The coil compartment, so called because all the coils both for beverage and for refrigeration are contained therein, should be heavy gauge. The coils should be of a first grade virgin ⅜-5 oz. block tin for the beverage, and tinned copper

**Fig. 1—Here is a bar installation in Chicago. This equipment has been designed and installed with the idea of assuring beer drafts having the right body, collar, sparkle and temperature**

(tinned outside) for the refrigerant. Note: So-called reclaimed block tin is not suitable for the beverage as it is decidedly inferior and is subject to cracking, and often is not free from alloys which are apt to contaminate the beverage. Copper coils that are not tinned, or lead tubing should never be used for beverage. The coil compartment should contain a sweet water bath at all times, this being also true in a direct icing unit, as no degree of cooling efficiency can be maintained in a dry compartment.

### FEATURES OF FAUCETS

The faucet is by no means unimportant. A number of faucets are made which look well from the outward appearance, yet in construction have decidedly detrimental features such as, leaky valves, restricted openings, etc., some even allowing oil to get into the beverage. A leaky valve is wasteful and insanitary, the restricted opening will cause excessive foaming, and any foreign matter in the beer is ruinous, so the faucet is important. A full clear opening will allow a free flow of beer, and a positive seat will prevent leaking, and a tin lined separate flow passage will insure sanitation at all times.

Cheap dispensing units which are not manufactured in respect to the above important features are not economical, but on the contrary cheapen any establishment in which they are found. Cheap equipment makes the correct serving of good beer an utter impossibility and is decidedly detrimental to the brewer, retailer, the beverage, and the customer. The best is the least expensive.

### THREE KIND OF BARREL TOPS

There are three kinds of barrel taps in general use—the bung type, and the screw lock type, which are the "Peerless" and the "Golden Gate" taps. To use the bung type insert a draft tube into the tap so that the end of the tube is flush with the bottom (small end), screw the lock washer fairly tight on the tube, place the tap on the end of the tube over the wooden barrel bung and drive in with the bung driver. After driving the bung into the barrel, push the tube down to the bottom and tighten up the lock washer. Of course the tube cock on top must at all times be closed when tapping.

With the screw lock or "Peerless" tap, the same procedure is followed except that the tap is screwed into a metal collar that comes on the barrel and the tube is then pushed (not driven) down to the bottom of the barrel and the lock washer tightened—in this case there is a cork under the metal collar on the barrel which is pushed out with the tube.

The "Golden Gate" tap is merely inserted in its respective socket which comes installed in the barrels—and with a quarter turn clockwise is ready for service. The "Golden Gate" vent and pressure coupling is inserted in its respective socket and with a quarter turn counter clockwise is ready for the pressure hose to be connected.

From the top of the draft tube a rubber beer hose is connected to a wall bracket which is in turn connected by means of a block tin line to the beverage coils in

either the coil box or novelty box. The pressure terminal is connected by means of air hose to a distributor cock which can be fitted with as many outlets as necessary. This distributor cock has one end connected by means of a short section of air hose to a pipe line leading to the source of air or gas pressure.

**Fig. 2—This illustration is interesting in that it shows the cellar of a British tavern equipped with swivel joint beer piping of monel metal**

Air pressure is obtained in any one of three ways: an automatic electric air pump, an automatic hydraulic air pump, or a hand operated pressure pump. The automatic air pump should be selected with regard to its provisions for protecting against oil or water getting into the air line because the air comes in direct contact with the beverage. The pump must therefore have a supply of clean fresh air at all times and should be kept in a clean dry place. The pressure supplied from these pumps is stored in an air tank of welded galvanized iron construction with 18 or 36 gallon capacity. This tank should be strapped to the wall or the ceiling and should be purged out about once a week to free it from dust or moisture. Although higher pressure may be carried in the tank the pressure on the beer in the barrel should not be more than 15 lb. and is controlled by gauges and regulators in the air line just before it enters the distribution cock. (Note—never before the storage tank.)

Pressure also can be obtained by means of carbonic gas. This is ordinarily supplied in 20 or 50 lb. drums capable of dispensing respectively about 25 or 63 half barrels of beer. The 20 or 50 lb. here referred to is in regard to the quantity of gas and not to the pressure. In this system the gas comes in contact with the beverage and the drum is installed in place of the air tank. It is recommended that the regulator be attached directly to the drum as there is a pressure of approximately 1000 to 1200 lbs. in the drum at normal room temperature which might, if allowed to escape into the system rupture the pipe line and cause untold damage. The regulator has a low pressure gauge which usually is set at 15 lb. for average dispensing. In connecting this gas pressure regulator precaution should be taken to observe the rules that are attached, as this is a very delicate instrument and with so great a pressure can be damaged easily.

A hand pressure pump is an advisable auxiliary in any system to provide against the failure of electrical or water supply for maintaining pressure.

The pressure line never should be shut off over night as an even pressure should be maintained in the cooperage at all times.

### HOW TO MAKE CONNECTIONS

In setting up a new outfit connections should be made to dispensing apparatus, i.e., coil boxes or novelty boxes first. Connect up the air or gas pressure line with all the gauges and regulators etc. Next be sure all connections are perfectly sound and tight as leaks in either pressure or beverage lines are detrimental and expensive. Note—It is a good plan here to run the pressure hose from the distributor cock over to the wall bracket and open up all the lines in the complete system and blow out with air or gas to remove any particles of dirt or chips that may have got into the lines in connecting. Connect the draft tubes to the wall bracket again and with the draft cock and distributor cock shut off, tap the barrel or half-barrel as described above. Now turn on the pressure line from the distributor cock first, and last of all the line to the faucet through the beverage coils. This system eliminates the danger of beer backing up into the pressure line and of losing pressure in the beer barrel. In disconnecting to change the barrel, shut off the pressure line on the distributor cock first, then close the cock on the draft rod and remove the tap; set in a new barrel and tap as described in the instructions above.

As a rule barrels should be placed as near to the coil box as possible and, if in the basement, should be directly below the unit in order not to have an unnecessarily long hose or tube connection. All connections not in the cool storage room or in the cool dispensing unit should be wrapped with insulation.

In an ice cooler it is a good plan to keep a cake of ice on top of each barrel, this helps to cool the beer and keeps the cooperage moist. In a mechanically refrigerated cooler sprinkle the cooperage occasionally in order to keep it in a moist condition.

There are a number of different types of beer cleaners, but they fall into two general classes: the hydraulic pressure cleaners, and the hand pump suction and force cleaners.

The suction and force pump cleaner has a cup or receptacle into which a cleaning compound is placed in a water solution and a pipe or hose connection, which should be attached to the beer lines at one of the faucets. Operate the pump until the line is flushed out completely,

(Continued on page 123)

# Code Authority Rules Brewing Industry

By C. D. Williams*

We look at the Brewers' Code.

You Executives, this is for you. It is your responsibility and for your instructions to those who take their orders from you.

Seven or eight months ago it began to be apparent that out of the socialistic labor provisions of the Black Bill would be born a more far-reaching, revolutionary type of legislation.

It was.

It was called the National Industrial Recovery Act.

Industry became slowly aware of what it might mean in its relations to Governmental supervision of business. Trade associations began to sit up and take notice at the suggestion of permitting price control. I will not say that was the lure of the Government, because the changing philosophies of gridiron strategy required sincere readjustment of the Administration point of view.

The significance of the Code began to dawn upon business men, and from dawning became a day-to-day living entity, and then, as we know, a horrendous nightmare, though now it is, in some industries, a beneficient law. It is in ours.

In early summer, eight or ten men of the brewing industry met in Washington and considered the necessities of the situation. The first juvenile attempt at labor agreement and fair trade practice drafting was engaged in. The Committee was enlarged. It met with labor. Redrafts were made as horizons broadened.

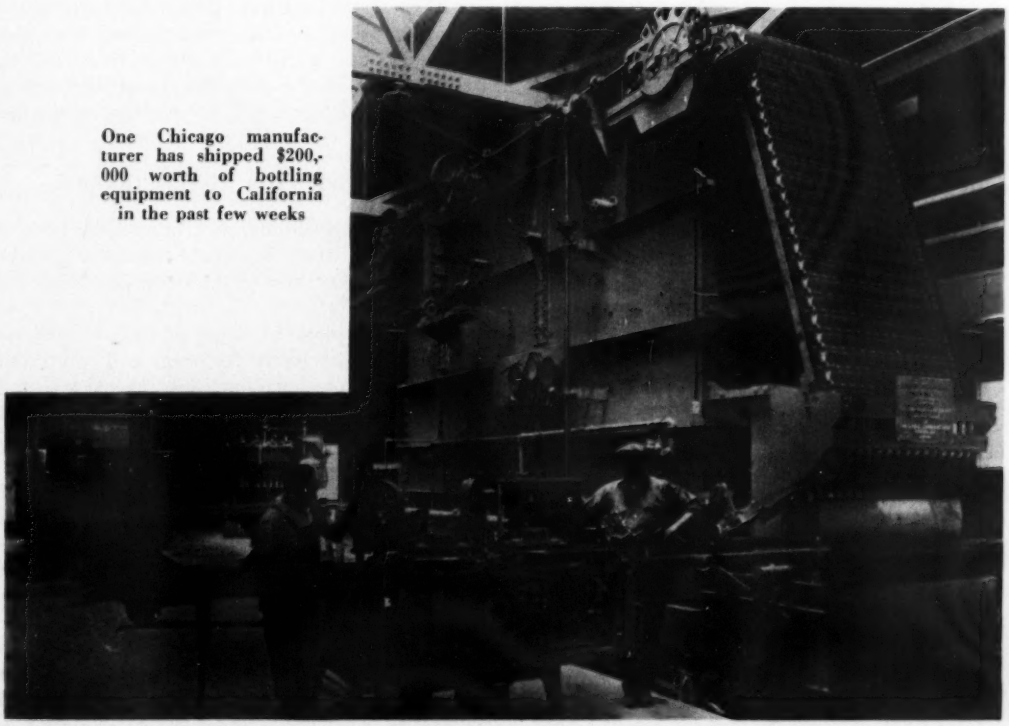
### DRAW FIRST CODE

Finally a semblance of the instrument which is now the Law and the Prophets resulted. It was transmitted to all Permittees in the United States, and objections were invited. They were received—in plenty—and at a meeting of the original proponents and objectors, at which never for a moment did harmony prevail, at which nerves were shattered and bad feeling engendered, less than no progress was made.

It is unnecessary to dwell upon the subsequent meetings of those who have followed the progress of the gradual emergence of a single point of view among a dozen different groups, the point of view which now marks the entire unification of the brewing industry, at least in so far as the analysis and operation of the Code is concerned, by which the industry will be and is governed, effective on the date of December 5.

No one could live through that travail and turmoil of meetings and conferences and discussions—were there forty or fifty?—could witness the interplay of technical opinion and legalistic differentiation of language—that of draftsmanship of laws—without having a sincere appreciation of the final alembic of prosperity to the brewer. I mean, the Code eventually became the laboratory test tube of the beliefs of fifty representative

*Mr. Williams is secretary of the United States Brewers' Association.



**One Chicago manufacturer has shipped $200,000 worth of bottling equipment to California in the past few weeks**

*Quality* BEER
BAR FITTINGS

THE Central Line of Beer Bar Fittings is built strictly on old-time Central quality ideas. If you are fed up with inferior goods, which result in poor service and ultimate loss —standardize on Central!

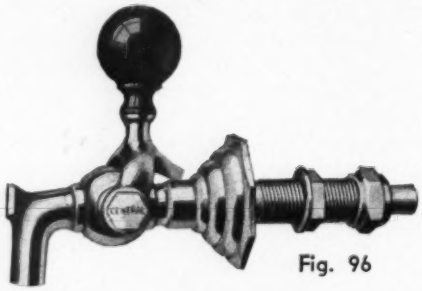


Fig. 96

Take the Ground Key Beer Faucet shown above, for example. It's good-looking of course. But, more important, it's adequately engineered and machined and fitted and finished to deliver years of trouble-free service! And that counts, at the business end of any bar.

Fig. 105

This new Central Tap is something unusual, too. You can work both the big winged handle and the lever by hand — *without tools.* This rugged Tap performs all functions of an ordinary tap with *easier operation,* assurance of tight fit, and no beer loss. Think that over!

Fig. 600X

Here's the new economy idea in the shut-off for your water service. It's a globe valve, with 1½ in. inlet connecting to water line, and outlet fitting for block tin pipe. Compared to the ground key cock method, it gives you a better and yet less expensive shut-off for your water line. Try it.

*Complete line of Central Quality Beer Bar Fittings shown in Catalog C. Write for it.*

CENTRAL BRASS MFG. CO.
2957 East 55th St., Cleveland, O.

CENTRAL
BRASS

men who spent their time, their energies and their money to reach a kind of working integrity.

There were moments of relaxation when humanistic communal points were reached in accident, and later by design, which served as antidotes to the general disorder. Even the experience with the Administration doctrinaires ceased to be entirely exasperating. Humanity was observed among the special Committee of the Administration.

In its finality it represents a workable Code of Fair Trade Practice, designed to restrict the brewers from injuring themselves and their business by unethical and ruinous procedure. It imposes severe penalties upon those who do not conform and permits entire autonomy of government of their industry.

Notably in this particular, but also in all other points of difference between the Brewers' Code and that of the distilled spirits industry was it obvious that not the same supervision was required for beer. There was, therefore, no reason for identical types of administration. This conception was eventually made clear to the Administration Committees. Thus, there are, in the Brewers' Code, no provisions for plant control, no limitation or allocation of production.

It is not perfect. It will not completely satisfy anyone.

It is nevertheless, I believe, with the necessary concurrence of provisions relative to price posting, container deposits and rules of fair trade practice present also in the Wholesalers' Code, a highly satisfactory product of the present relationship between industry and government.

The salvation and continued progress of the brewing industry now lie not within economic trends so much as under the control of the Code Authority and the Regional Boards.

This is not wholly true, because there is also an obligation to recognize the requirements and the opportunity for the industry in public relations aspects, in publicity and in the economic possibilities of collective advertsing which will help to sell beer rather than trademarks or the claims of any brewer.

### NEED FOR ADMINISTRATION

A great responsibility lies upon these men who will sacrifice much of their personal interests toward the successful administration of the Code which has been given them.

The entire scope of detail and administration of this body cannot be clearly foreseen, and interpretations of the various, somewhat intricate provisions of the Code may not be safely attempted except in relation to specific instances.

Credit is due, in passing, to the effective work of the legal talent of the United States Brewers' Association, the American Brewers' Association and the Brewers' Emergency Committee, not only for the excellent preparation but for the presentation of the Code, which is, I believe, a fairer working manual than many others.

Let the brewers now cease competing with one another. Let them compete together against other industries for the largest possible share of the consumer dollar, and let them share the increased business thus obtainable with one another on an equitable basis.

# What Readers Ask

*Here is a department devoted to a discussion of questions which are selected as of outstanding interest to beer dispensing equipment dealers*

### About Toilet Facilities for Taverns

To the Editor:

Today one of the members of our city council asked me for information about specifications or requirements for toilet facilities for taverns, restaurants and dining rooms where alcoholic drinks are consumed. He wanted this information for the purpose of amending or improving our plumbing code in the suggested direction now that prohibition is past history.

Kindly give me some advice in this matter.

S. M. S.

Missouri.

To the Reader:

Frank R. King, chief plumbing inspector in Wisconsin, recently covered this question in the following manner:

Where both sexes are accommodated, separate toilet rooms for males and females should be provided and maintained in connection with all places where stimulating drinks, such as beer, wines and similar alcoholic beverages are served for consumption on the premises.

Toilet fixtures should be provided in connection with the area served, for the sex (or sexes) served, as follows:

One water-closet for every 40 females, or fraction; one water-closet for every 75 males, or fraction, and where there are more than 25 males accommodated there should be one urinal for every 50 males, or fraction in excess of 25.

The number of persons herein refers to the number of persons that may be accommodated at the same time, and may be determined by allowing 15 sq. ft. per person of floor area not otherwise occupied.

In toilet rooms used by males, all water-closets should have projecting lip (or so-called elongated pattern) and open front self-rising counter-weighted seat without cover. In toilet rooms used by females, all water-closets should have projecting lip open front seat, without cover. All urinals should be of the individual type set into the floor with the floor graded toward the urinal.

In dance halls there should be provided one water-closet for each 100 females or fraction, one urinal for each 150 males or fraction and one water-closet for each 300 males or fraction, assuming the audience to be equally divided between males and females.

Where stimulating drinks, such as beer, wines and similar alcoholic beverages are served for consumption on the premises, there should be provided one water-closet for every 40 females or fraction, one water-closet for every 75 males, or fraction, and one urinal for every 50 males, or fraction; except that where the capacity in such places exceeds 300 persons, the ratio of number of fixtures to number of persons accommodated in excess of 300 need be only one-half of the above.

In every such building or place, wash bowls should be provided in connection with toilet rooms, one for every two water-closets and urinals, or fraction, clean individual cloth or paper towels and soap should be provided in connection with each lavatory installation. The installation of a towel for common use or the use of any such towel is not permissible.

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# Quality—

(Continued from Page 120)

then repeat the operation using fresh clean water, after completing the cleaning hook-up, as described later.

The hydraulic cleaners have a bowl into which the cleaning compound is placed. One of two tube connections is fitted to the city water supply and the other to one of the bar faucets. This, however, does not complete the cleaning hook-up and no steps in cleaning should be taken until the barrels are disconnected. It is now necessary to connect the beer hose on the wall bracket at the end of the line which the faucet, that you have attached the pipe cleaner, is on, to an adjoining wall bracket on the line of the next faucet. This forms a complete circuit from the city water faucet, through the pipe cleaner, into the beer faucet, through the beer hose at the wall bracket, up and out of the adjoining bar faucet. Only that portion of the circuit between two faucets can be cleaned at one time and if there are more than two faucets the process described merely is repeated with the remaining faucets. The city water is turned on and allowed to run until clear water is seen at the drain side of the cleaning hook-up and let run clear for a few minutes. After cleaning, pipe lines should be blown out with air or gas pressure as previously described to eliminate trapped water. *The beer pipe lines and barrel tubes should be cleaned at least twice each week.*

Another very important point of sanitation is concerning the cleaning of glasses, mugs, tankards or other receptacles in which beer is served. They must be kept scrupulously clean. Any foreign matter whatever, especially soap, will taint the beer and prevent the formation of a cap which is necessary in good service. It is well to use one of the prepared and approved cleaning compounds, the same as is used in flushing out the pipe lines for the cleaning of glasses and other containers. Of

**62 years**

in the manufacture of a first-grade line of brass goods

The wise dealer wastes no time with untried lines because a slight price edge saves him a few pennies here or there—instead he stacks his reputation on a line that has been tried by years of service. Such a line is this line, which boasts 62 years of service to the industry it serves. Here we indicate the completeness of the line of brass for brewery and dispenser.

**For the Brewery**

Beer hose sight feed fittings
Round way stop cocks
Government Lock cocks
Hose couplings, nipples, reducers and caps
Test cocks
Brass pipe plugs
Sight feed Y fittings
Cast brass return bends
Brass pipe return bends
Combination outlet ell and racking cock
Combination outlet ell and lock cock
Spring racking valve
Spring valve opener

**For the Dispenser**

Beer and water faucets
Straight and bent tapping rods
One, Two and Three way distributors
Mixing switches
Distributing Y fittings
Hose nipples and unions
Air cocks
Ice box couplings
Outlet plugs
Picnic pumps
Keg top cooler pumps
Brass bar rails
Overflows and sockets

Our latest catalog, just off the press, shows our complete line of brass goods. We will mail it at your request.

**RUNDLE-SPENCE MFG. CO.**
445 NORTH 4TH ST. MILWAUKEE, WIS.
*Sixty-two Years of Brass Manufacturing Experience*

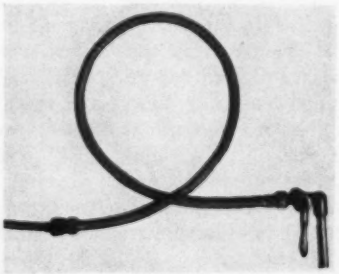
*The New Brewers' Code Places the Beer Equipment Business in Your Hands*

CASH IN ON THE NEW
ALL METAL FLEXIBLE BEER HOSE

**"FLEX-PIPE"**

"FLEX-PIPE" is an All Metal, Sanitary Tinned, Flexible Permanent Beer Hose which permits the Safe and Easy handling of the Beer at the Draught Tubes.

EVERLASTING—NO DETERIORATION—NO KINKS—and good tasting Beer



Patented.

Sold in all lengths with couplings ready for hook up.

*We Manufacture*

STANDARD BEER DISPENSING EQUIPMENT, AUTOMATIC ELECTRIC BEER PUMPS, BUNGS, TAPS, RODS, BEER PIPE CLEANERS and CLEANING COMPOUND, GAS and AIR REGULATORS, AIR DISTRIBUTORS, BEER FAUCETS, BEER COOLERS, WORK BOARDS.

*EVERYTHING FOR BEER and THE BAR AT ONE PLACE.*

**AMERICAN COOLER CO.**
**37 W. 19th St. New York City**
*Our Catalogue Is Yours for the Asking*

course, some cleaning agent must be used as glasses cannot be cleaned properly by merely rinsing in clear water. Glasses or any other serving vessels must be washed, scalded and dipped in cold water, to be ready for re-serving.

Beer should be served in cool wet glasses or containers as cold water makes the cap stand up properly. Customers will not object to wet glasses of beer if it is clean, sparkling, cool and courteously served.

It is expedient that instructions be given here on how to draw a glass or tankard of beer. Place the receptacle under the tap, pull the tap handle all the way and allow a full stream of beer to run into the receptacle until it is about two-thirds full. Close the tap for a few seconds allowing the beer to settle, then open the tap all the way again until the beer overflows slightly. Scuff off the excess cap and serve. Use a bone or wood scuff stick, never glass or porcelain as they will chip. Never draw beer by partially opening the tap as this will excite the beverage and cause excess foaming.

### AVOID DRIP BEER

Remember that beer is at its best when served at 40 deg. Fahr. In a new system a few glasses should be drawn and discarded to insure a clean line. Do not place a glass in a drip tray to catch dripping as any spillage is worthless and the glasses in the tray are unsightly and insanitary. If a glass of drip beer should happen to be served, the recipient undoubtedly will never be seen again. Do not fill glasses in anticipation of trade as beer which stands even a few minutes in a glass is unfit for service. Customers usually enjoy watching the drawing of cool, foaming beer.

To fill a glass of beer from the bottle, place the bottle on a table or bar top and remove the cap while holding the bottle firmly on the rest. Tip the glass and place the top of the bottle well down into the glass and against the side and pour the beer out gently until the glass is three-fourths full raising the bottle top in the glass as the beer rises. Do not overflow but place the glass and bottle before the customer and leave the rest to him. Do not turn the bottle upside down and cause the liquid to gurgle into a glass, as this will foam up the beer and is decidedly unsightly, and the glass most likely will overflow before you can right the bottle again. Customers enjoy good service but loath tricks, especially when performed at their expense. Allow us to mention at this point by way of emphasis, the all important fact that bottle beer must not stand in sunlight and although amber bottles protect it against the actinic action of the sun's rays, it is best and safest to never expose the bottles at all to sunlight, even when they are in the cases. If bottle beer is desired for display purposes the brewer will most likely be glad to furnish full bottles to be used for this purpose only. There is no surer way to lose a customer than to serve him a bottle of beer that has been standing in the sun, even if it has been cooled afterwards. The sun's rays change the composition of the beer completely and no manner of refrigeration can restore its natural flavor.

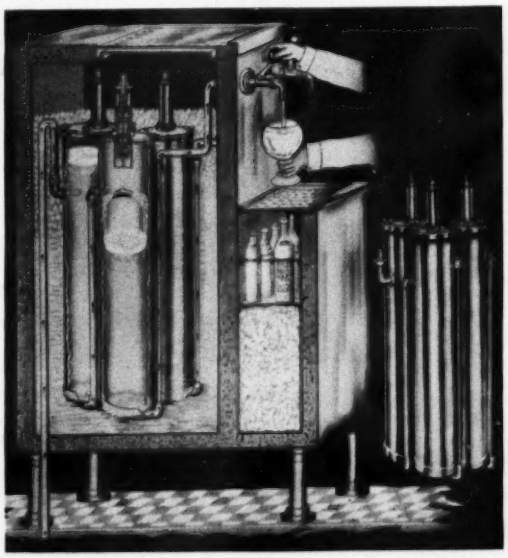
Never chill beer by placing it in an ice cream freezer or soda fountain. Ice cream temperatures and conditions have absolutely no relation to beer dispensing temperatures and are apt to ruin the beer completely.

# Products
## for the
# Beer and Bar Equipment Dealer

Readers will find in this section information and news regarding products for use in making their beer dispensing sales and installations

### Cooling and Dispensing Apparatus

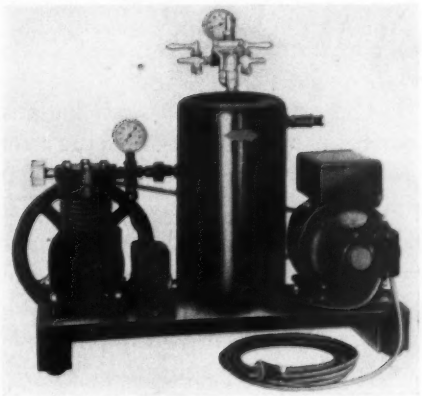
What is described as a new and different type of beer cooling and dispensing apparatus is featured in the accompanying illustration. This equipment has been designed for rapid cooling and the preservation of the beer flavor and aroma, without wasting either foam or natural gases. Each unit supports either one or two



faucets and is made to have a cooling capacity equal to 540 ft. of coil. One large pre-cooling cylinder is connected to two cylinders of smaller dimensions. The beer enters the large cylinder where it is controlled by means of a baffle that checks the flow from agitation and directs the flow around the walls. When the larger cylinder is filled, the beer then flows in the two smaller cylinders in a like manner. There are three double acting valves designed to allow atmospheric pressure within the three cylinders to vent slowly. These valves open slowly, thus permitting a very slight release of air. When all of the three cylinders are nearly filled, the valves close automatically to retain a counter-pressure according to the regulated pressure. The units are described as being heavily silver plated and are made in two models; the vertical one for the new deep type of coolers, and the horizontal one for the shallow type of coolers. Either of the units are suitable for ice or mechanical refrigeration. This equipment is manufactured by Hedges & Brother, 105 South Street, Newark, New Jersey.

### An Electric Beer Pump

The accompanying illustration shows an electric beer pump. Its several features include an air filter through which all air, handled by the pump, passes. This is designed to prevent dust or other foreign matter from being carried into the beer. The filter is arranged so



that it can be piped to outdoor air if desired. The compressor is designed to be large for heavy duty. As for the air reservoir, this has been made to provide a large air storage capacity for meeting peak demands and for cutting down the running cycles of the motor. An automatic safety valve is mounted on the side of this tank and an adjustable pressure regulating valve is in-

**CURTIS**
**Beer Equipment**

*Outstanding*
QUALITY
Makes It Easy to Sell

**CURTIS Beer Pumps**

Compact (vertical or horizontal tanks). Precision made. Reflect our 40 years experience in building air compressors. Air strainer on intake, quiet, rubber mounted, V-belt drive, wick-oiling. Uses Po-Ri-Co for lubrication, won't contaminate beer, cost of pumping much lower than with gas. Adaptable to stationary or portable bars—1/6 or ¼ H. P. sizes. Attractively priced. Details on request.

*Refrigerating Units*

Design and precision tooling combine to make these units extraordinary from the standpoint of efficiency; and amply able to withstand the exacting requirements of long continued intermittent service. Buyers who seek good equipment will be interested in these units. Details on request.

**CURTIS**
**PNEUMATIC MACHINERY CO.**
1934 Kienlen Avenue, Saint Louis
5518-Y Hudson Terminal, New York City

WE'LL HELP YOU GET

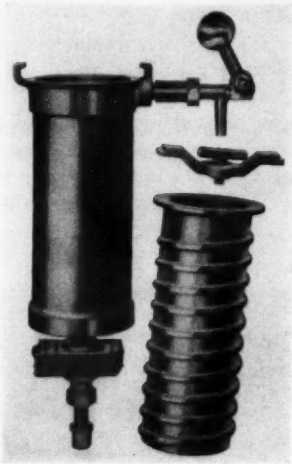
**IN THE MONEY**

• There's money in bar installations! Brunswick can help you get "in the money" by co-operating with our Architectural Planning Service. We know bar installation problems—have handled them for nearly 90 years. And we are showing the greatest line of bar fixtures ever offered to your customers. Let us aid you in *profitable* installations. Drop a line to

THE BRUNSWICK-BALKE-COLLENDER CO.
623-33 South Wabash Ave., Chicago, Illinois

Brunswick
BAR FIXTURES AND EQUIPMENT

cluded for automatically maintaining the desired serving pressure within a 1-lb. range. This regulating valve is equipped with a copper bellows. The air distributing manifold has been made to deliver equal pressures to both keg lines. Two shut-off valves provide for two air lines leading to two or more kegs and permit shutting off the air while tapping the keg. Of the two pressure gauges, one shows the pressure in the storage tank at all times. The other gauge shows the pressure in the beer kegs. Gauges can be piped to the bar if desired. The motor is started and stopped automatically by a pressure control switch set to start when the tank pressure drops to 35 lb. and to stop when the pressure reaches 50 lb. This model is finished in black and maroon with all of the fittings in chromium plate. Fedders Manufacturing Co., 57 Tonawanda St., Buffalo, N. Y., is the manufacturer.



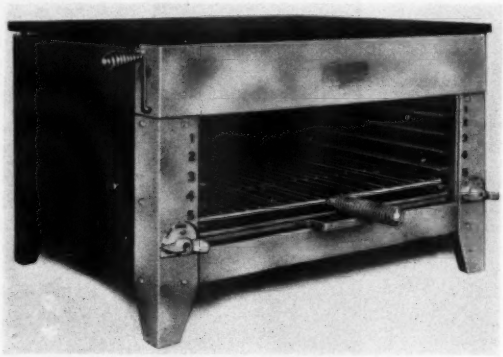
### A Cooling Unit

Here is a unit for cooling beer which is rated as having a capacity equivalent to 40 ft. of ordinary ½-in. block tin tubing. The overall length is 16½ in. and the largest diameter (at the top where the clamp fits) is 6 9/16 in. The unit is made of heavily tinned copper and is designed to be installed in most coil boxes. For cleaning, the clamp at the top of the unit is loosened and the inside element is lifted out. All of the surfaces through and over which the beer passes then are exposed for cleaning. Specialty Brass Company of Kenosha, Wisc., is the manufacturer.

### A Gas Broiler and Griddle

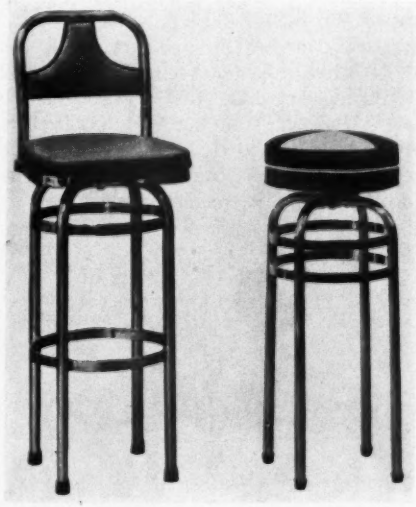
A combination broiler and griddle is shown in the accompanying illustration. This unit is equipped with a specially constructed hinged oven, described as being easily attached. Baking and roasting facilities also are made available. The capacity of this oven is such that two 17 lb. rib roasts or two turkeys of like weight can be roasted at one time. At the same time these roasting operations are going on, the lower compartment is available for broiling, toasting, browning, etc. The gas burners are provided with grids which the gas flames

heat to a dull red temperature. Cooking is described as then being accomplished by radiant heat as well as convected heat. The griddle plates are constructed of cast iron 5/8 in. in thickness, designed to have a high heat storage capacity while a uniform temperature is maintained throughout their area. The rails for supporting the broiler racks are numbered for the convenience of the operator. The gas valves have three positions: off, low-heat, and high-heat. The intermediate low-heat gas consumption is adjustable in its setting. Welsbach Company, of Gloucester City, New Jersey, is the manufacturer.



### A Line of Bar Stools

The accompanying illustration shows two of a line of bar stools. One stool of this line has an upholstered inner spring swivel seat. This is 13 in. in diameter while the stool is available in either 30 in. or 24 in.



heights. Another stool in this line is fitted with a linoleum or metal top 12 in. in diameter, the stool being available in a 30 in. height. Still another model is equipped with an upholstered swivel seat having a back. This seat is 15 in. wide and the stool can be obtained in 30 in. or 24 in. heights. The Howell Co. located at Geneva, Illinois, is the manufacturer.

### A Bottle Beverage Cooler

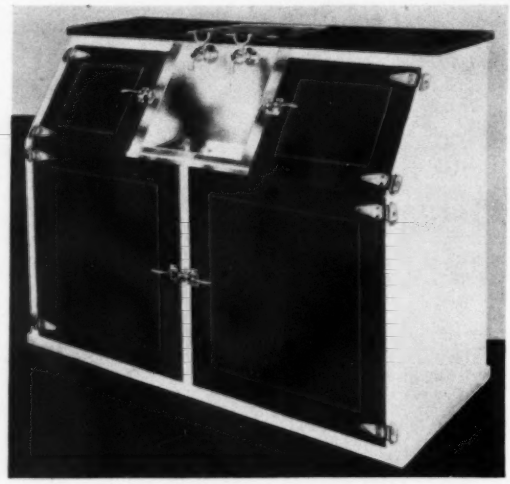
The accompanying illustration shows a cooler for bottled beverages. It is designed for a capacity of one hundred and fifty 7-oz. soda bottles or one hundred and

seventeen 12-oz. beer bottles or eighty 24-oz. qt. bottles. Its height is 39 in., length 39 in. and width 29 in. The inside dimensions are 25 in. by 35½ in. by 13 in. deep. Insulation is 2 in. thick on the bottom, 1½ in. thick on all sides and 1 in. thick in the two lift doors. It is designed to be operated with either ice or mechanical refrigeration. The motor compressor and cooling coil can be added at any time. It is of all steel construction. The legs are of ornamental pressed steel. The doors and door frame are of a heavy rust resisting steel. Directly underneath the cabinet, at the front ends, provisions have been made for the storage of empty bottles, also bottle case displays. The finish is green or blue. S & S Products Company, Old National City Bank Bldg., Lima, Ohio, is the manufacturer.

### Novelty Box Cooler

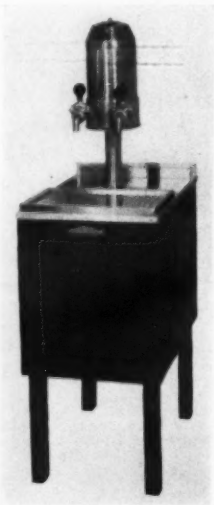
A novelty box designed as display equipment in restaurants is shown in the accompanying illustration. It is described as having 2½-in. walls with 1-in. cork insulation. It may be finished either in white or in oak trim. The faucet space is faced with heavy copper which is tinned on both sides. The side rails of the beer sink are faced with highly polished chromium plated copper. The bar top, Magnolia Ebony stain and finish, has waterproof varnish over all. Forty feet of block tin coil is furnished each of the two spigots. These are mounted on galvanized cores which are used as shields to prevent damage to the tubing when icing. The doors are insulated with cork. The length of this unit is 56 in., the height 45½ in. and the depth 27½ in. An overflow pipe permits the drawing off of the melted ice water.

Burch Manufacturing Co. of 1906 Wyandotte St., Kansas City, Mo., is the maker.



### A Dispensing Unit and Cooler

Here is a unit which is described as being especially suited to the requirements of lunch rooms, restaurants, small clubs, and the like which have a limited amount of space for their beer dispensing equipment. It is made

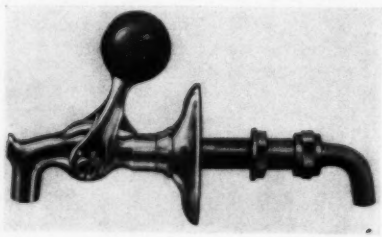


so that it can be used on the first floor behind present counters, when beer is drawn from a storage compartment in the basement. The tap cooler stand shown here is the 18-in. size. It is available for equipment where a proper sized compressor is now in use, in which case it requires only the usual hook-ups from the tap cooler stand to the compressor. A large tank is contained within the tap cooler stand (and is furnished as part of the 18-in. tap stand equipment) to keep the compressor from starting and stopping at short intervals. In other words, the compressor runs longer but with less frequency. The Brunswick-Balke-Collender Co., 623 So. Wabash Ave., Chicago, Illinois, is the manufacturer.

### An Electric Steam Coil Cleaner

The accompanying illustration shows a steam generating plant designed to be operated from any 110-volt circuit for the cleaning of beer coils and tubing. It is rated as consuming 1.2 kilowatts of current per hour of operation. Also, it is rated as being capable of gen-

erating 120 lb. of pressure, wet steam, from cold water in 25 to 30 minutes. The unit stands 28 in. high, 8½ in. in diameter and weighs 48 lb. It has a boiler capacity of 480 cubic in. The steam boiler is tested to withstand a pressure of 400 lb. The safety valve on the boiler is sealed to release at 125 lb. pressure. This cleaner is described as being capable of cleaning from 12 to 16 beer coils during one hour of operation starting with cold water. A special drain coupling has been provided to enable the operator to clean drains as well as coils. Commercial Products Company, 841 Washington Boulevard, Chicago, Ill., is the manufacturer.



### Faucet for Drawing Beer

Here is a faucet for use in connection with novelty boxes and beer dispensing units. It is finished in polished brass and has a tapered ground valve. Nickel or chromium plating can be furnished as desired. The manufacturer is National Aluminum & Brass Foundry, of Independence, Missouri.

## Sales Helps

### Issues List of Taps, Bushes and Parts

American Tap Bush Co. of Detroit, Mich., has issued a condensed list of its beer dispensing products, including taps and bushes, washers, coolers, faucets, carbonators and parts, purifiers, portable fountains, and wrenches.

### Announces Improvement in Block Tin Pipe

The engineering department of the White Metal Rolling & Stamping Corporation, 80 Moultrie Street, Brooklyn, N. Y., is distributing an announcement of its efforts to make a beer and soda fountain pipe that will withstand breaking and bursting conditions, the result of its efforts being that it has developed a tin pipe of such construction that every inch of its walls is in absolute uniformity and precision. The announcement states that this new pipe has been tested to more than thrice the amount of pressure used in soda fountain and beer installations.

### Issues Pamphlet About Liquor Faucets

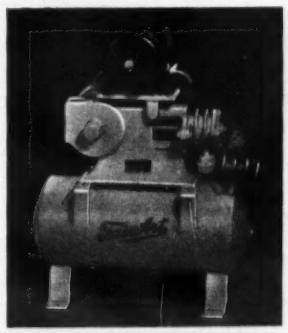
The Royal Brass Manufacturing Company of Cleveland, Ohio, has issued a small pamphlet entitled "Just in Time," describing and illustrating its line of liquor faucets with tapered threaded shank for use on wooden kegs and barrels, with either plain spouts or bottle fill spouts. This pamphlet is designed for distribution by beer equipment dealers and space is reserved for the imprint of their names and addresses.

### Folder Describes Beer Bars

Duke Manufacturing Company of St. Louis, Mo., has issued a large folder describing and illustrating its line of beer bars, beer dispensers and monel metal bar sinks. These bars are made for mechanical refrigeration or for ice refrigeration. All bars for ice refrigeration are so designed that it is easy to fit them with coils for mechanical refrigeration. The bars can also be fitted with coils for circulating brine from a central refrigerating plant.

### Delivers Address on Stainless Steel

C. C. Snyder of the Central Alloy Division of Republic Steel Corporation of Massillon, Ohio, delivered an address on "Industrial Uses of Stainless Steel" before a meeting of the American Society of Mechanical Engineers at Cincinnati, Ohio, November 23. Prefacing his address with a brief history of the development of stainless steel, Mr. Snyder then divided the present large number of different types of stainless steel into the proper main groups, giving their general characteristics and properties. The latter part of the address stressed the rapidly increasing use of stainless steel in various industries, such as building, brewing, automotive and other industries. Lantern slides were used to illustrate a number of typical installations.



•No Oil
•No Oil Fumes
•Just Fresh Beer

The FAIR-ART is constructed so that oil or oil fumes can not get even remotely close to the beer. Air compressor cylinder and crank case housing are separated, eliminating need for lubrication.

•

Profitable territories are still available. Write at once.

*The* **FAIR-ART**

Shipped completely assembled. Two sizes: No. 800—10 tap capacity. No. T-800—20 tap capacity.

FAIRBANKS ENGINEERING CO.
WORCESTER, MASSACHUSETTS

WACO

AUTOMATIC • COMPACT

Most Popular Beer Pump in America

*Write for details and territory offerings*

WATER APPLIANCE CO.
605 N. SECOND ST., MILWAUKEE, WIS.

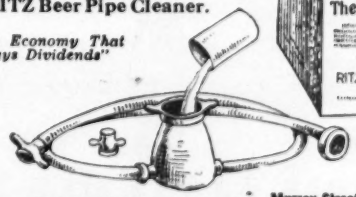
ECONOMICAL • OIL FREE

BEER TASTES TERRIBLE

*Unless beer pipes are clean*

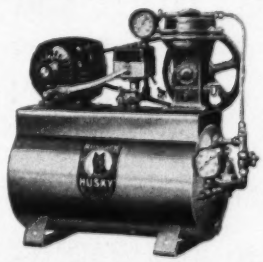
Years of widespread use have developed the finest agency for good, clear, tasty beer, in RITZ Beer Pipe Cleaning Compound for use with RITZ Beer Pipe Cleaner.

*"An Economy That Pays Dividends"*



RITZ CHEMICAL CO., Murray Street and Avenue C Newark, N. J.

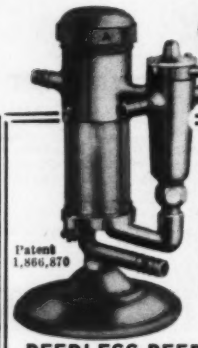
PUMPS PURE AIR ONLY




No oil fumes to reach the beer. Bronze bearings throughout. Force feed lubrication. Quiet in operation. Completely assembled ready to install. Guaranteed for two years. A ready seller.

*Write for exclusive distributor proposition.*

The Monarch Engineering Co., Dayton, Ohio




**Cleans and Scours—Double Action**

Here's a beer pipe cleaning machine that is really double acting—it rotates the solution in the coils, in both directions—and not only cleans but scours in its actions, going through coils and faucets in both directions.

With the Peerless the owner can leave pure water in his coils and faucets overnight and in the morning run fresh water back and forth, assuring fresh wholesome keg beer at all times—no tanks, coils, etc., to hold beer over night.
Tinned inside and out.

**PEERLESS BEER PIPE CLEANER COMPANY**
313 W. Chestnut St. Chicago, Ill.

**Positively Pumps No Oil!**

**Dayton's New "WHITE CAP" Automatic, Oil-less BEER PUMP**

EXCLUSIVELY FOR BEER!

The "Dayton White Cap" beer pump is ideal for dispensing draught beer in large volume—because it assures a good supply of clean, dry compressed air at all times. No pistons or rings—prevents pumping of any oil whatsoever into air line. ¼ HP repulsion-induction motor—10 gal. tank—cuts out at 30 lbs. pressure and in at 20 lbs.—quiet operation—V-belt driven. Size 24"x25"x 12". Weight—80 lbs. net. Ask about Model Y-100.

The DAYTON AIR COMPRESSOR CO.
"48 Years of Specializing"
425 Valley St., Dayton, Ohio

**Beer Dispensing Equipment for 26 Years!**

*Bar Faucets, Tapping Rods, Beer Dispensing Equipment and Fittings. Coils, Air and Gas Regulators and pumps.*

**ILLINOIS BRASS MFG. CO.**
224 NORTH ADA STREET CHICAGO, ILL.

**Good Beer** is the result of successful co-operation between the brewer, the maker of dispensing equipment and the dealer who installs it.

As a dealer you'll do your part far more profitably to yourself if you follow

**BEER *and* BAR EQUIPMENT**

## U. S. Brewers' Association Will Meet in Atlantic City

The United States Brewers' Association will hold a convention at the Ambassador Hotel in Atlantic City, N. J., on February 6 and 7, 1934, to which all brewers and members of allied trades are invited. A business meeting followed by several constructive addresses and a banquet is being arranged.

## Folder on Barrel Dispenser for Beer

Multiplex Faucet Company, 4319-25 Duncan Avenue, St. Louis, Mo., is distributing a folder describing its new barrel dispenser for beer. These barrels are furnished in 17-gallon and 45-gallon capacities, and they are made of quarter-sawed white oak. The hoops are of stainless steel, which will not tarnish or corrode. The liner is heavy galvanized iron, which will last for years, and the cork insulation is from three inches to five inches thick at the bilge of the barrel.

## Catalog of Beer Dispensing Equipment

Franklin Machine Products Company, 663-665 Broadway, New York City, has issued its catalog "C," describing its line of beer dispensing equipment, including beer cooler faucets, bar faucets, water faucets, air cocks, air distributors, faucet and rod couplings, replacement parts, tapping rods, single low pressure regulators, air pumps, block tin pipe, brass bar drainers and beer pumps.

## Folder Features Novelty Boxes

Oscar J. Boldt Manufacturing Company of Appleton, Wis., is distributing a folder illustrating and describing some of its novelty boxes, which are insulated with 2 inches of genuine cork laid with hot odorless asphalt. These boxes are made of solid oak and equipped with two center coils arranged in such a manner that beer can always be kept at the proper temperature.

## Folder Describes Beer Faucets

The Ohio Pattern Works & Foundry Company of Cincinnati, Ohio, has issued a folder describing and illustrating its quick-opening and self-closing beer faucets, which are constructed in such a manner that agitation of the beer is eliminated. The entire valve and valve holder in these faucets can easily be removed for cleaning or replacing.

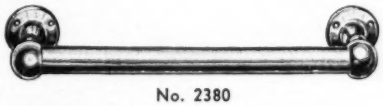
## Circular Describes Brass Bar Faucets

Messmer Brass Company of 2700 South Seventh Boulevard, St. Louis, Mo., has issued a circular entitled "Beer Dispensing Brass Goods," featuring its bar faucets, air distributors, coil box couplings, cast aluminum bar drains, beer taps and vents. These and other items manufactured by this company are illustrated and described.

# For Special Fittings write the GRAND HAVEN BRASS FOUNDRY

## BRASS BAR RAILS AND FITTINGS

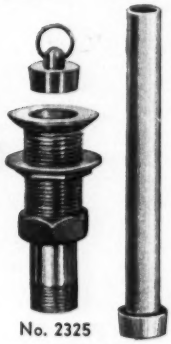
No. 2365 No. 2366 No. 2367 No. 2368



No. 2380

No. 2370 No. 2369

No. 2360



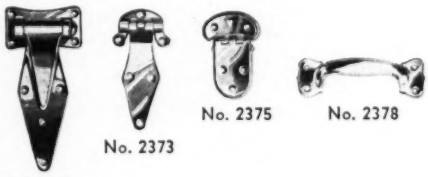
No. 2325

## OVERFLOW AND STANDPIPE WITH COUPLINGS

*Brass Plug can be furnished if desired*

No.
2325—With 8″ Standpipe.
2326—With 10″ Standpipe.
2327—With 14″ Standpipe.
2328—With 20″ Standpipe.
2329—Brass Plug Only.

## HINGES, CATCHES AND PULLS



No. 2371 No. 2373 No. 2375 No. 2378

3 4

No. 2352 No. 2346 No. 2351

No. 2346—Y Distributor

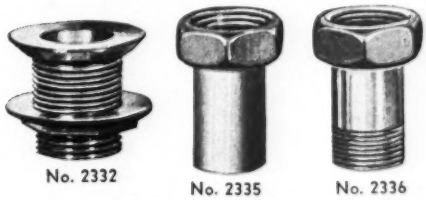
No. 2402

No. 2305

No. 2420

No. 2222

## SOCKETS AND TAIL PIECES



No. 2332 No. 2335 No. 2336

No. 2332—1x2″ Socket and lock nut only.
No. 2333—1x3″ Socket and lock nut only.
No. 2334—1x4″ Socket and lock nut only.

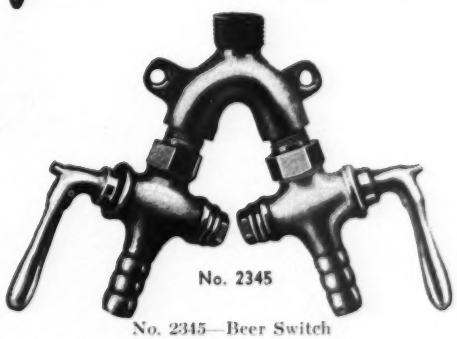
## SOLDERING FLANGES

No. 2337

No. 2337—For ⅛″ Pipe.
No. 2338—For ¼″ Pipe.
No. 2339—For ⅜″ Pipe.
No. 2340—For ½″ Pipe.
No. 2341—For ¾″ Pipe.
No. 2342—For 1″ Pipe.

*(Larger sizes furnished if desired)*

No. 2347 No. 2348 No. 2349 No. 2350



No. 2345

No. 2345—Beer Switch

**Grand Haven Brass Foundry. Grand Haven, Mich.**

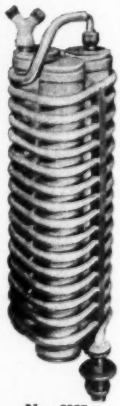
# Basbleco Syphon Bottle Filler
# More Profit Per Drink

SERVE better drinks for less money. Fill your own syphon bottles. Use the same carbonic gas tank for drawing beer and syphon bottle filling. Speedier, cheaper, more convenient bar service. The equipment pays for itself.

Own your own bottles—fill them at a moment's notice. When carbonic gas is used for serving beer, the same gas tank can be used for making seltzer by using both high and low pressure $CO_2$ regulators, attached to the gas tank by a No. 2390 double connection.

If draft beer is served at bar, a No. 2327 cooler is located in beer coil box. Otherwise, a cooler box is necessary. If city water is cloudy or unfit, filtered water may be used.

When carbonic gas costs 20c per lb., syphon bottles can be filled at less than 1c each.



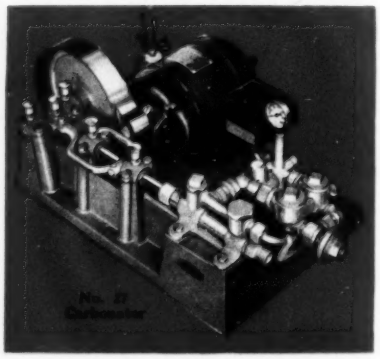
No. 2327

No. 2385 outfit comes complete, including bottle guard, the filler valve as shown, together with No. 2-95 shut-off valve and connection for ¼" 4-ounce block tin pipe. Shank of filler valve is standard for ⅞" drain board thickness.

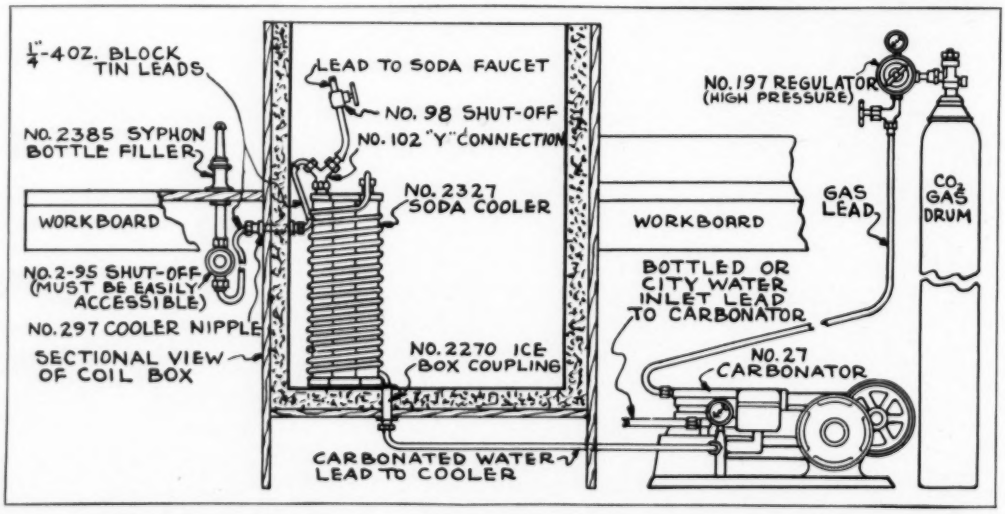
No. 27 carbonator is especially recommended for this service because this unit produces a super-carbonated water without attaining the usual high commercial filling pressures.

No. 27 carbonator pumps measured amounts of gas and water through the No. 2327 coolers, at which point complete saturation is accomplished at low temperatures.

No. 27 carbonator is operated from a lighting circuit. In ordering, specify alternating or direct current and voltage.



THE BASTIAN-BLESSING COMPANY
240 E. Ontario St., Chicago


¼"-4OZ. BLOCK TIN LEADS
NO. 2385 SYPHON BOTTLE FILLER
WORKBOARD
NO. 2-95 SHUT-OFF (MUST BE EASILY ACCESSIBLE)
NO. 297 COOLER NIPPLE
SECTIONAL VIEW OF COIL BOX
LEAD TO SODA FAUCET
NO. 98 SHUT-OFF
NO. 102 "Y" CONNECTION
NO. 2327 SODA COOLER
NO. 2270 ICE BOX COUPLING
CARBONATED WATER LEAD TO COOLER
NO. 197 REGULATOR (HIGH PRESSURE)
WORKBOARD
GAS LEAD
$CO_2$ GAS DRUM
BOTTLED OR CITY WATER INLET LEAD TO CARBONATOR
NO. 27 CARBONATOR

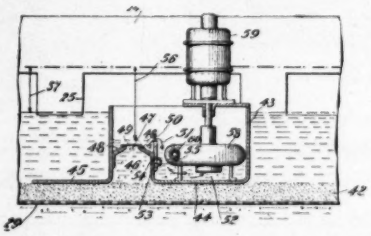
# BASTIAN-BLESSING

*Manufacturers of approved dispensing equipment for nearly half a century.*

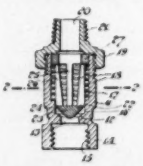
# New Ideas From Patent Office

## Plumbing Department

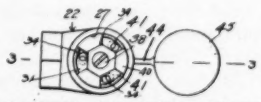
1,919,567. Filter and Cleaning Device for Sewage Clarification Tanks. William C. Laughlin, Kew Gardens, and Abraham B. Asch, Brooklyn, N. Y., assignors to Filtration Equipment Corporation, New York, N. Y., a Corporation of Delaware.



1,919,567. FILTER BED CLEANING DEVICE FOR SEWAGE CLARIFICATION TANKS



1,919,696. DRAIN VALVE



1,919,779. TOILET FLUSHING APPARATUS

1,919,696. Drain Valve. Robert H. George, Philadelphia, Pa.

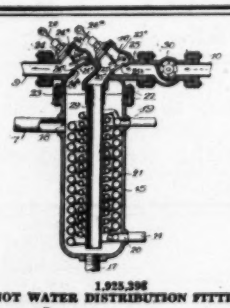
1,919,779. Toilet Flushing Apparatus. Stephen P. Enright, Philadelphia, Pa.

1,925,398. Hot Water Distribution Fitting. Robert Edwin Moore, Chicago, Ill.

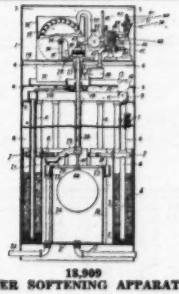
18,909. Water Softening Apparatus. Edward T. Turner, Dayton, Ohio.

1,920,367. Electric Water Closet. John C. Duner, Chicago, Ill.

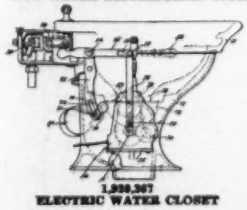
1,921,827. Water Faucet. Samuel Kersten, Chicago, Ill.



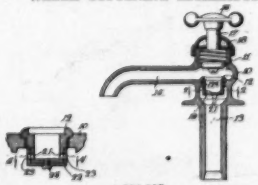
1,925,398
HOT WATER DISTRIBUTION FITTING



18,909
WATER SOFTENING APPARATUS



1,920,367
ELECTRIC WATER CLOSET



1,921,827
WATER FAUCET


*Look for the* *Arm-and-Hammer*

**ARMSTRONG BROS.**

*Better* PIPE TOOLS

The most complete line of Pipe Tools made. Standard types, each with many improved design and construction features. Lighter, balanced tools with drop-forged, hardened and alloy steel parts wherever they will add to strength or tool life.

For tight places—the Ratchet Stock and 3-wheel (Barnes Type) Pipe Cutter.

ARMSTRONG BROS. TOOL CO.
*"The Tool Holder People"*
323 N. Francisco Ave., CHICAGO, U. S. A.

*Write for Catalog*

**NO-SOL COPPER FLOATS**

**Quality Merchandise**
**DOES MOST TO STIMULATE Consumer Confidence**

5" Round Float

4"x5" Oval Float

*Incorporated 1907*

The AYLING & REICHERT CO.
3047 N. ERIE ST., TOLEDO, OHIO

**THE "MODERN" RANGE BOILER**

Pat. No. 1853949

30, 40 and 50 Gallons
200, 250 and 300 lb. Test

In the above capacities the top and body of the "Modern" Boiler is formed from a single extra-heavy Copper Shell and drawn cold-seamless to the bottom, thus eliminating the top joint and the side seam and leaving only a bottom joint. The bottom head is hydraulically pressed on the shell and riveted securely with Copper Rivets closely spaced. Over the rivets a seamless copper band is spun and sweated, reinforcing the joint and making a solid construction which is impossible to come apart under any circumstance. Every boiler is reinforced internally and guaranteed against collapse. The interior is thoroughly tinned.

Sold Through Wholesalers Only

**HAYES MFG. CO., Paterson, N. J.**

Established 1870

**• WARNOCK •**

*Triple Wear Wrenches*

The Warnock wrench is easy to adjust. The strap is arranged in such a way that it can be drawn absolutely tight in *one* movement. Notice, too, that this strap is triple folded at the point of greatest strain.

*For chrome, brass and nickel plated pipe*

WARNOCK MFG. CO., Worcester, Mass.

# AMERICA'S FINEST OCEAN FRONT HOTEL

Because it values the enviable position it enjoys in the play life of those who cherish a taste for good living and have the means to indulge it . . . because it appreciates that a keen sense of values is invariably the companion of good taste . . . the Roney Plaza has declined to permit the bright outlook for better times to influence its tariff schedule.

Rates this year at the Roney remain the same, while many physical improvements have been made to enhance the high standards of guest comfort, extraordinary service and brilliant social life which have made it famous.

Open from November 15th to May 1st.

For literature, information, and reservations address the hotel direct or see your travel agent.

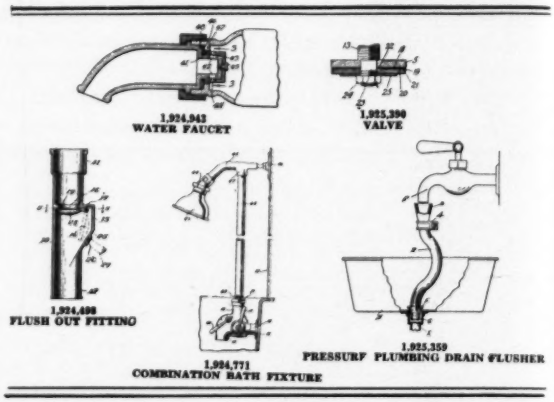
Open from November 15th to May 1st. For literature, information and reservations write or wire direct to the hotel or see your travel agent.

RONEY PLAZA

MIAMI BEACH, FLORIDA


1,924,943. Water Faucet. Samuel Kersten, Chicago, Ill.

1,925,390. Valve. Emil J. Kocour, Chicago, Ill., assignor to Sloan Valve Company, Chicago, Ill., a corporation of Illinois.




1,924,498. Flush Out Fitting. Hiram Hammond House, El Paso, Texas.

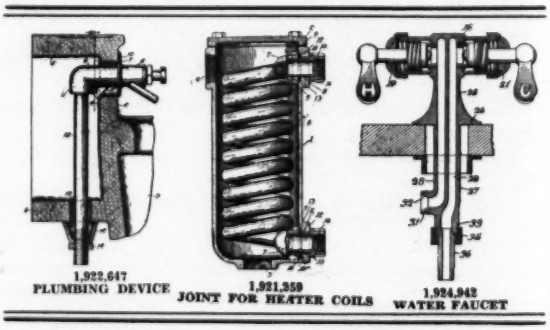
1,924,771. Combination Bath Fixture. Albert C. Brown and Earl E. Brown, Chicago, Ill., assignors to The Chicago Faucet Company, Chicago, Ill., a corporation of Illinois.

1,925,359. Pressure, Plumbing Drain Flusher. Felix Alonso, Belvedere Gardens, Calif.

1,922,647. Plumbing Device. Earl G. Watrous, Chicago, Ill.

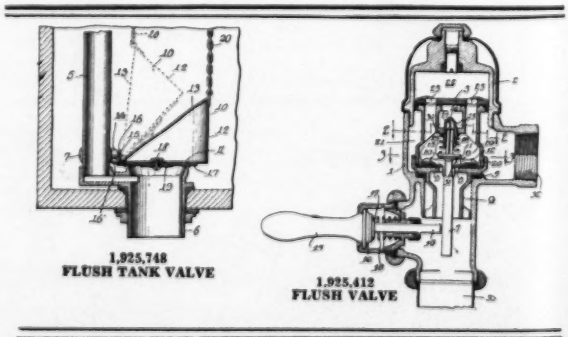
1,921,259. Joint for Heater Coils. Charles A. Olson, Geneva, Ill., assignor to Crane Co., Chicago, Ill.

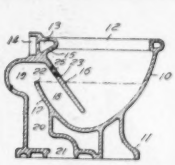
1,924,942. Water Faucet. Samuel Kersten, Chicago, Ill.



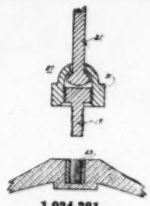

1,925,748. Flush Tank Valve. Lawrence L. Colvin, Louisville, Ky.

1,925,412. Flush Valve. William E. Sloan, Chicago, Ill.

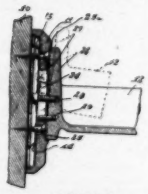




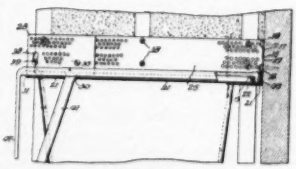
1,922,961
WATER CLOSET BOWL AND CLEAN-OUT CONSTRUCTION THEREFOR



1,924,381
FLUSH VALVE ROD



1,922,345
BATHROOM FIXTURE



1,920,513
BATHTUB HANGER

1,922,961. Water Closet Bowl and Clean-Out Construction Therefor. Samuel Krinsky, New York, N. Y.

1,924,381. Flush Valve Rod. Joseph Sachs, Pittsburgh, Pa.

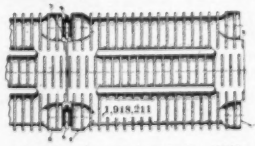
1,922,345. Bathroom Fixture. Walter G. Bauch, Chicago, Ill., assignor to Bauch Porcelain Products Co., Chicago, Ill.

1,920,513. Bathtub Hanger. William B. Lucke, Wilmette, Ill.

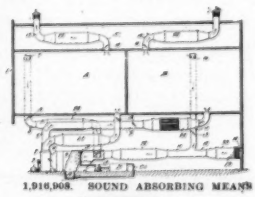
## Heating Department

1,918,211. Radiator with Integral Fins. Charles A. Olson, Geneva, Ill., assignor to Crane Co., Chicago, Ill., a Corporation of Illinois.

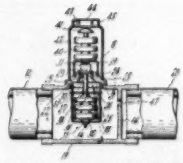
1,916,908. Sound Absorbing Means. Alfred E. Stacey, Jr., Essex Fells, Leo L. Lewis, Plainfield, and Milton S. Smith, Maplewood, N. J., assignors to Carrier Engineering Corporation, Newark, N. J.



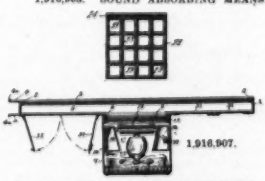
RADIATOR WITH INTEGRAL FINS



1,916,908. SOUND ABSORBING MEANS



1,916,695. VACUUM CHECK AIR VALVE FOR VAPOR HEATING SYSTEMS



1,916,907.

VENTILATING AND AIR-CONDITIONING APPARATUS

1,916,695. Vacuum Check Air Valve for Vapor Heating Systems. William K. Simpson, Waterbury, Conn., assignor to Hoffman Specialty Company, Waterbury, Conn., a Corporation of Illinois.

1,916,907. Ventilating and Air Conditioning Apparatus. Don A. Sargent, Portland, Me.

1,919,777. Humidifier. Arthur Diehl, Milwaukee, Wis.

1,919,555. Radiator Cabinet. Frederick W. Hoslef, Kohler, Wis.


"WHAT LUCK!

You're just the man I wanted to see!"

At The ROOSEVELT,

meetings like this are an every-day occurrence—you do meet the men you "wanted to see." It isn't luck—it's simply that the men and women of your world naturally stop at the Roosevelt. They appreciate value, in hotel service as in everything else. And the Roosevelt is New York's best value—the least expensive finer hotel.

Rooms now from $4.00

The ROOSEVELT

Edward C. Fogg, Managing Director

Madison Ave. and 45 St., NEW YORK

A UNITED HOTEL

NEARLY half the 1600 rooms at the William Penn Hotel have now been reduced to $3.00 and $3.50. A NEW DEAL for everybody! The same excellent service, the same luxurious appointments at Pittsburgh's finest hotel. All rooms with bath . . .

HOTEL
WILLIAM PENN
PITTSBURGH

Also the FORT PITT HOTEL—good rooms from $1.50 with bath $2.00



In Miami Beach it's

*The Fleetwood*

Opening for the Winter Season
January first. European Plan.

An Exclusive Winter Resort Hotel, on Biscayne Bay, with Ocean Bathing, a Private Dock and every facility for the comfort and entertainment of its exclusive and discriminating clientele.

Rates Double from $8.00 to $20.00 per day.
A la carte service and Fixed Price Meals.

A DeWITT OPERATED HOTEL

THOMAS CAGWIN
Resident Manager

Other DeWitt Operated Hotels include:
In Cleveland Its THE HOLLENDEN
In Chicago Its THE LASALLE
In Columbus Its THE NEIL HOUSE
In Akron Its THE MAYFLOWER

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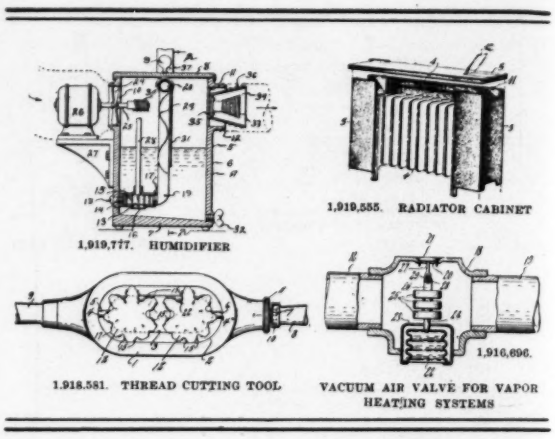
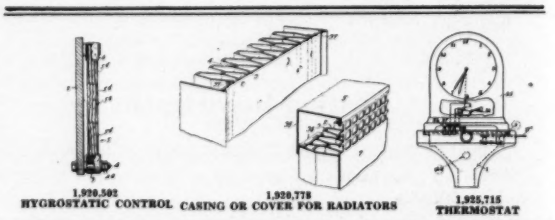



1,918,581. Thread Cuetting Tool. Louis A. Alexander, Toledo, Ohio.

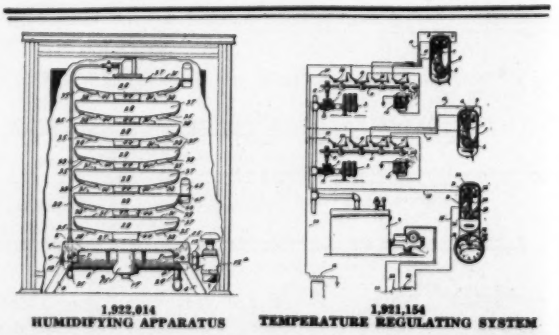
1,916,696. Vacuum Air Valve for Vapor Heating Systems. Charles W. Stewart, Waterbury, Conn., assignor to Hoffman Specialty Company, Waterbury, Conn., a Corporation of Illinois.




1,920,502. Hygrostatic Control. Worth C. Goss, Seattle, Wash., assignor to Humidity Control Company, Seattle, Wash., a corporation of Washington.

1,920,778. Casing or Cover for Radiators. Irving T. Bennett, Brooklyn, N. Y., assignor, by mesme assignments, to American Radiator & Standard Sanitary Corporation, a corporation of Delaware.

1,925,715. Thermostat. Oscar H. Dicke, Rochester, N. Y., assignor to Pioneer Heat Regulator Corporation, a corporation of New Jersey.




1,922,014. Humidifying Apparatus. Charles W. Brabbée, Bronxville, N. Y., assignor to American Radiator Company, New York, N. Y., a corporation of New Jersey.

1,921,154. Temperature Regulating System. Howard D. Colman, Rockford, Ill.

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**Turn dead stock into quick cash by shipping your surplus couplings and thread protectors to us. Write for our highest market prices —Today.**

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If you are looking for competent employes; or if you contemplate a change in position, have a patent for sale; wish to purchase or sell a plumbing and heating business; second-hand machinery or tools; form a co-partnership, etc., your advertisement on this page will put you in touch with the people you desire to reach.

The cost of insertion is only eight cents a word and may mean many dollars to you.

# Index to Advertisers

## *January, 1934*


Acheson Mfg. Co.....100
American Brass Co..... 11
American Cooler Co.....124
American Oil Burner Association ..... 69
American Tap Bush Co....102
American Telephone & Telegraph Co. ..... 17
Ames Pump Co..... 88
Anderson Mfg. Co..... 64
Armstrong Bros. Tool Co..133
Ayling & Reichert Co.....133

Barber Gas Burner Co., The ..... 74
Barnes & Jones, Inc..... 70
Bastian-Blessing Co., The..132
Bell & Gossett Co..... 73
Brunswick-Balke-Collender Co., The .....94 and 126
Burnham Boiler Corp..... 55

Central Brass Mfg. Co.....122
Century Electric Co..... 65
Chase Brass & Copper Co., Inc. ..... 15
Chicago Faucet Co..... 6
Cleveland Brass Mfg. Co.....Inside Front Cover
Commodore Heaters Corp.. 74
Crane Co. ..... 9
Curtin Valve Co., A. F..... 99
Curtis Pneumatic Machinery Co. .....126

D. & T. Mfg. Co..... 62
Dahlquist Mfg. Co..... 92
Dart Mfg. Co., E. M..... 74
Dayton Air Compressor Co., The .....130
Decatur Pump Co.....100
Devlin Mfg. Co., Thos..... 99
Dole Valve Co.....57 and 58
Duriron Co., Inc., The..... 97

Eagle-Picher Lead Co..... 37
Excelso Products Corp..... 69

Fairbanks Engineering Co..129

General Electric Co.....Inside Back Cover
Gerstein & Cooper Co..... 84
Grand Haven Brass Foundry .....131

Hayes Mfg. Co.....133
Heating & Ventilating Exposition ..... 72
Hindley Mfg. Co..... 87
Hoffman Specialty Co..... 75
Hotel Fleetwood .....136
Hotel Roosevelt .....135
Hotel Roney Plaza.....134
Hotel Wm. Penn.....136

Illinois Brass Mfg. Co.....130
Imperial Brass Mfg. Co.... 14
International Nickel Co... 8

Janette Mfg. Co..... 73
Jarecki Mfg. Co..... 86

Kainer & Co..... 74
Kennedy Valve Mfg. Co.... 80
Kewanee Boiler Corp..... 44
Kitson Co. ..... 68
Koven & Bro., Inc., L. O... 83

Lavelle Rubber Co.....100
Leland Electric Co..... 66
Liquid Carbonic Corp.....103

Marsh Corp., Jas. P..... 71
McDonald Mfg. Co., A. Y...140
McDonnell & Miller..... 76
Milwaukee Valve Co..... 60
Minneapolis Honeywell Regulator Co. ..... 40
Monarch Engineering Co....129
Myers & Bro. Co., F. E..... 18

National Regulator Co..... 68
Northern Indiana Brass Co. 13
Nye Tool & Machine Works. 82

Peerless Beer Pipe Cleaning Co. .....130
Penberthy Injector Co..... 35
Penna. Range Boiler Co.... 91
Production Plating Works, Inc. ..... 70

Radiator Specialty Co..... 97
Red Jacket Mfg. Co..... 10
Reichert Float & Mfg. Co.. 91
Republic Steel Corp.....139
Ridge Tool Co., The..... 92
Ritz Chemical Co.....129
Riverside Boiler Works, Inc. 87
Rundle-Spence Co. .....124

Scovill Mfg. Co..... 5
Smooth-On Mfg. Co..... 94
Spencer Heater Co..... 43
Speakman Co. ..... 12
Standard Sanitary Mfg. Co. 7
Sturtevant Co., B. F..... 41

Thrush & Co., H. A..... 42

Universal Sanitary Mfg. Co. 79

Vogel Co., Jos. A..... 3

Warnock Mfg. Co.....133
Water Appliance Co.....129
Watts Regulator Co..... 73
Wayne Oil Burner Corp.... 64
Worcester Brush & Scraper Co. ..... 82

York Oil Burner Co..... 71
Youngstown Sheet & Tube Co. .....Back Cover

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In the course of a year, Republic salesmen are many times asked the question, "Why should we pay a premium for Toncan Iron Pipe?"

The answers, "Because it lasts longer," and "Because it is worth it for economy reasons," are true, but there's a better answer.

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## an ART LINE combining modern BEAUTY with McDonald QUALITY

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You will like the graceful modern lines of the exposed parts—the way they fit into any decorative scheme—the richness they lend to bathrooms of any size or type.

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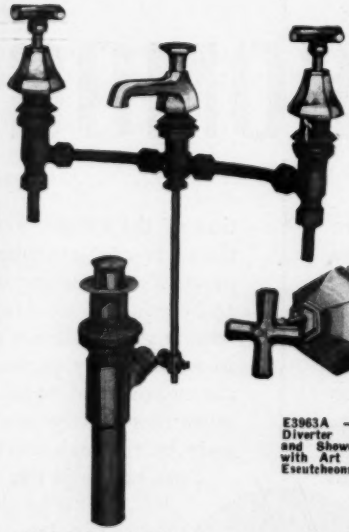
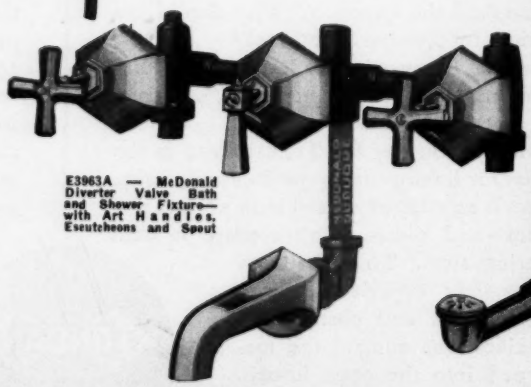
E3992A — McDonald Concealed Bath Fixture (with spout through tub) with Art Handles, Escutcheons and Spout

E3987A—McDonald Concealed Bath Fixture (with Over-Rim Spout and Shower) with Art Handles, Escutcheons and Spout



E363A—Combination Lavatory Fixture, with Pop-up Drain — Art Handles, Escutcheon and Spout



E3963A — McDonald Diverter Valve Bath and Shower Fixture—with Art Handles, Escutcheons and Spout

Illustrations show only part of line. Write for complete information

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